EXR-105/XR-3740

SERVICE MANUAL

US Model
Canadian Model
EXR-105

E Model
XR-3740

Photo: XR-3740

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-25A-136

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08% (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	58 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Aerial terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	35 W × 4 (at 4 ohms)

General

Outputs	Power antenna control lead/ Power amplifier control lead/ Telephone mute control lead (XR-3740 only) Rear line out (1)
Tone controls	Bass ± 8 dB at 100 Hz Treble ± 8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 184 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 164 mm (w/h/d)
Mass	Approx. 1.3 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

FM/AM CASSETTE CAR STEREO

MICROFILM

SONY®

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SERVICING NOTES

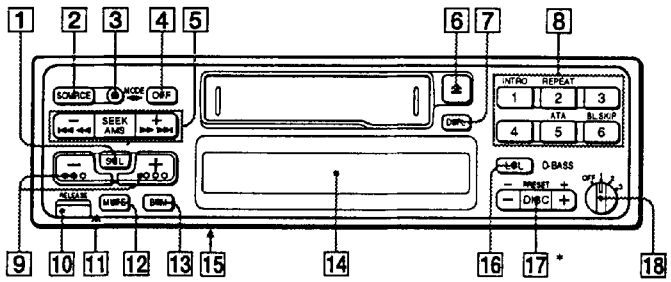
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Location of controls



Refer to the pages for further details.

1 **SEL (control mode select) button 5, 8, 9**

2 **SOURCE button (TAPE/TUNER) 5, 7, 9**

3 **MODE (◄I►) button**
During tuner reception:
BAND select 7

During tape playback:
Transport direction change 5

4 **OFF button 5**

5 **SEEK/AMS button 5, 6, 7, 8, 9, 10**

6 **⏏ (eject) button 5**

7 **DSPL (display mode change/time set) button 5, 6, 8, 9**

8 **During radio reception:**
Preset number buttons 7

During tape playback:
① INTRO button 6, 10
② REPEAT button 6, 10
⑤ ATA (Automatic Tuner Activation) button 6
⑥ BL.SKIP (Blank Skip) button 6

9 **⊕⊖ (volume/bass/treble/balance/fader control) button 5, 8**

10 **RELEASE (front panel release) button 4, 12**

11 **Reset button (located on the front side of the unit hidden by the front panel)**
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

12 **MUTE button 8**

13 **BTM (Best tuning memory) button 7**

14 **Display window**

15 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT Switch" in the Installation/Connections manual.

16 **LCL button 8**

17 **PRST button**
During tuner reception:
Preset station select 7

18 **D-BASS control 8**

EN

Additional Information

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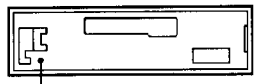
Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ball-point pen.



Reset button

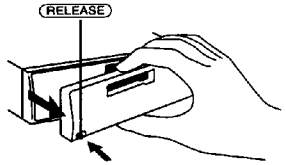
Note
Pressing the reset button will erase all the memorized program and memory functions.

Detaching the front panel

The front panel of this unit can be detached to prevent the unit from being stolen.

1 Press (OFF).

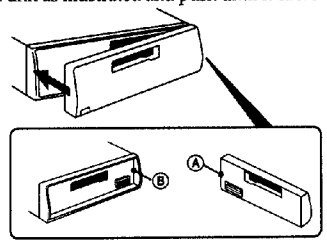
2 Press (RELEASE) to open up the front panel, and detach the panel by pulling it towards you.



Notes
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you press (RELEASE) to detach the panel while the unit is still turned on, the power will automatically turn off to protect the speakers from being damaged.*

Attaching the front panel

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.



Notes
- *Make sure the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.*
- *Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.*
- *When you carry the front panel with you, put it in the supplied front panel case.*
- *Do not press hard or give excessive pressure to the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight, heat sources such as hot air ducts or leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.*

Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch is set to the Ⓐ position). If you connect an optional power amplifier and do not use the built-in amplifier, the beep tone will be disabled.

SECTION 1
GENERAL

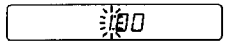
This section is extracted from instruction manual.

Setting the clock

The clock has a 12-hour digital indication.
For example, setting it to 10:08

1 Press (OFF) or (DSPL) during operation.

2 Press (DSPL) for two seconds.



The hour digit flashes.

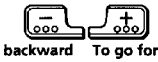
❶ Set the hour digits.

To go backward To go forward

❷ Press (SEL) momentarily.

The minutes digits flashes.

❸ Set the minute digits.



To go backward To go forward

3 Press (DSPL) momentarily.

The clock starts.

Note
If the POWER SELECT switch on the bottom of the unit is set to the ⓑ position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio.

Adjusting the sound characteristics

1 Select the item you want to adjust by pressing (SEL) repeatedly.
VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)

2 Adjust the selected item by pressing either (+) or (−).

Adjust within three seconds after selecting. (After three seconds the button will again serve as the volume control button.)

Muting the sound

Press (MUTE).
The "MUTE" indication flashes.

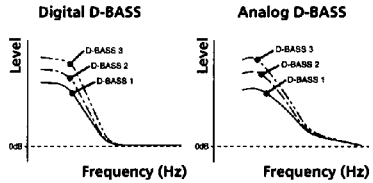
To restore the previous volume level, press again.

Tip
The unit decreases the volume automatically when a telephone call comes in (Telephone mute function).

Changing the sound and beep tone

Boosting the bass sound — D-Bass

You can enjoy clear and powerful bass sound. The D-bass function boosts the low frequency singal with a sharper curve than conventional bass boost.
You can hear the bass line more clearly even if the vocal sound is the same volume. You can emphasize and adjust the bass sound easily with the D-bass control. This effect is similar to the one you get when you use an optional subwoofer system.
Moreover, the Digital D-bass* function creates even sharper and more powerful bass sound than Analog D-bass.



Adjusting the bass curve

Turn the D-BASS control to adjust the bass level (1, 2 or 3).
"D-BASS"* appears in the display.

To cancel, turn the control to the OFF position.

** If an optional CD changer has the Digital D-BASS function, "DIGITAL D-BASS" appears on the display during CD playback (XR-C340 only).*

Muting the beep tone

Press (6) while pressing (SEL).
To obtain the beep tone again, press these buttons once more.

Note
If you connect an optional power amplifier and do not use the built-in amplifier, the beep tone will be disabled.

Installation

Precautions

- Do not tamper with the four holes on the upper surface of the unit. They are used for tuner adjustments to be made only by service technicians.
- Choose the mounting location carefully so that the unit does not interfere with normal driving operation.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to Detach and Attach the Front Panel

Before installing the unit, detach the front panel.

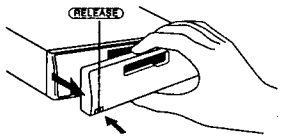
To detach

Press the (RELEASE) button to open up the front panel, then pull it out.

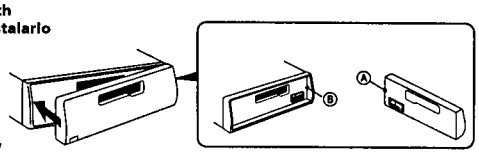
To attach

Align parts Ⓐ and Ⓑ, and push the front panel unit it clicks.

To detach
Para extraerlo
要拆卸時

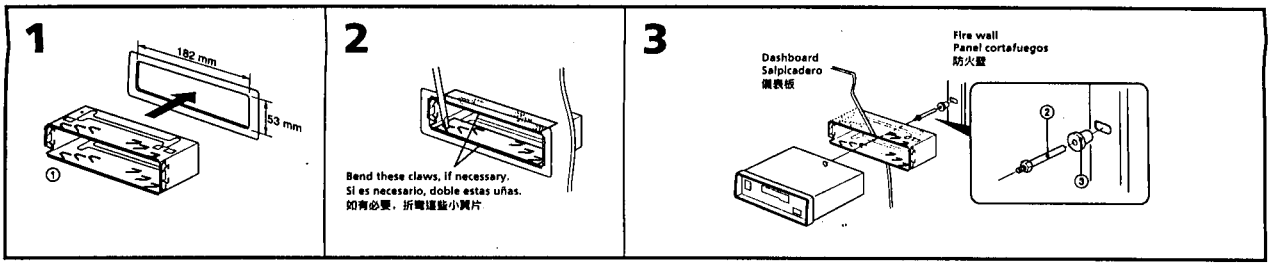


To attach
Para instalarlo
要安裝時



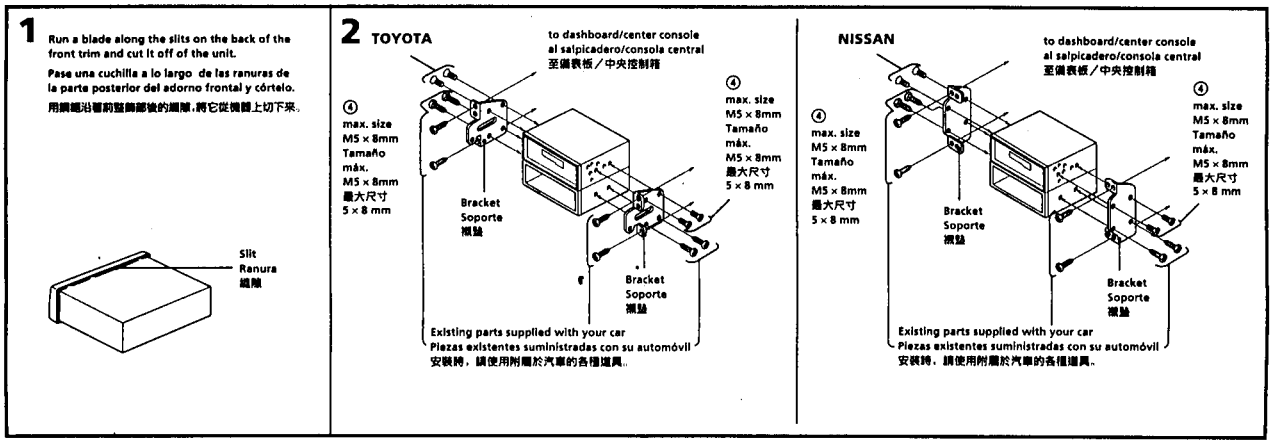
Mounting example

Installation in the dashboard



Mounting the Unit in a Japanese Car

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.



Note

To prevent malfunction, install only with the supplied screws ④ and use existing parts supplied with your car.

Instalación

Precauciones

- No toque los cuatro orificios de la superficie superior de la unidad. Estos orificios son para ajustes del sintonizador que solamente deberán realizar técnicos de reparación.
- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire caliente de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme, emplee solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

Forma de extraer e instalar el panel frontal

Antes de instalar la unidad, extraiga el panel frontal.

Para extraerlo

Presione la tecla (RELEASE) para abrir el panel frontal y, a continuación, extráigalo.

Para instalarlo

Alinee las partes Ⓐ y Ⓑ, y presione el panel frontal hasta que chasquee.

Ejemplo de montaje

Instalación en el salpicadero

Montaje de la unidad en un automóvil japonés

Usted no podrá instalar esta unidad en algunos sutomóviles japoneses. En tal caso, consulte a su proveedor Sony.

Nota

Para evitar que se produzcan fallos, realice la instalación solamente con los tornillos suministrados ④ y utilice los componentes suministrados para el automóvil.

安裝

使用前須知事項

- 請勿擅自觸動本機背面的四個小孔。該孔只供專業人員調整調諧機時之用。
- 本機請放在不妨礙司機駕駛之處。
- 避免把本機放在高溫之處，如陽光直接照射、暖氣機前、或灰塵極多、髒蔽易受震動等地方。
- 為了安全起見，安裝時請使用附屬的安裝禮具。

安裝角度之調整

請在20度以內調整安裝角度。

前板之裝卸

開始安裝以前，請先拆下前板。

要拆卸時

按下 (RELEASE)（釋放）按鈕以掀開前面板，然後把它拉來。

要安裝時

如圖所示，對齊前板的 Ⓐ 孔及本機的支軸 Ⓑ 點，然後將左側向內壓入。

安裝例子

安裝於儀表板上

要安裝於日本汽車裡

有的汽車不能安裝本機，此時，請向離貴地最近的 Sony 經銷店查詢。

註

為防止發生意外事故，安裝時只能使用附屬的螺絲④及汽車所附屬的部件。

Connection

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key switch is in the accessory position.
- **Run all ground wires to a common ground point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating.
  If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual components' fuse rating.
  If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery.
  If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

If Your Car has No Accessory Position on the Ignition Key Switch — POWER SELECT switch

The illumination on the front panel is factory set to be turned on even while the unit is not in use. However, this setting may cause some car battery wear **if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ⓫ position, then press the reset button.** The illumination is reset to stay off while the unit is not in use.

Note

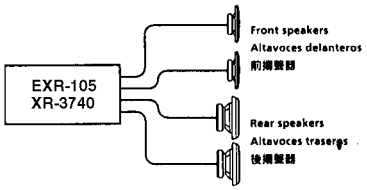
The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ⓫ position.

Reset button

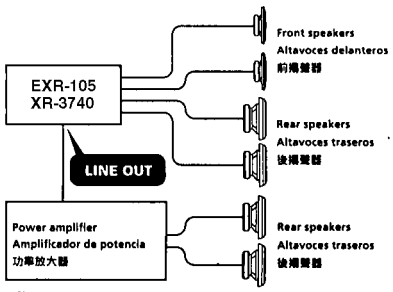
When the installation and connections are complete, be sure to press the reset button with a ball-point pen etc.

Connection diagram

Example 1/Ejemplo 1/ 例 1



Example 2/Ejemplo 2/ 例 2



Note

If you connect an optional power amplifier and do not use the built-in amplifier, the beep tone will be disabled.

Nota

Si conecta un amplificador opcional de potencia y no utiliza el incorporado, el pitido se desactivará.

註

如果連接了一個輔件功率放大器而不用內裝的放大器，嘟聲不發出哪聲。

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables conectores de alimentación **amarillo y rojo** solamente después de haber conectado los demás.
- Cerciórese de conectar el cable conector de alimentación rojo a un terminal de 12 V positivo que se energice al poner la llave de encendido en la posición para accesorios.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad.
  Si conecta esta unidad en serie con otros componentes de estéreo, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la de la suma de las capacidades de los fusibles de cada componente.
  Si ningún circuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería.
  Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito con una capacidad superior a la del fusible de la unidad de tal manera que si se funde el fusible de ésta, no se cortará ningún otro circuito.

Si el automóvil no dispone de posición para accesorios en la llave de encendido — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en reproducción. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil si **éste no dispone de posición para accesorios en la llave de encendido.** Para evitar esto, **ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ⓫ y, después, presione el botón de reposición.** La iluminación estará desactivada cuando la unidad no se encuentre en reproducción.

Nota

La alarma de precaución del panel frontal no se activará cuando el selector POWER SELECT se encuentre en la posición ⓫.

Botón de reposición

Cuando haya finalizado la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.

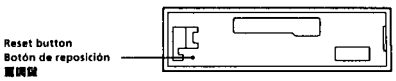


Diagrama de conexiones

Example 1/Ejemplo 1/ 例 1

Example 2/Ejemplo 2/ 例 2

Note

If you connect an optional power amplifier and do not use the built-in amplifier, the beep tone will be disabled.

Nota

Si conecta un amplificador opcional de potencia y no utiliza el incorporado, el pitido se desactivará.

註

如果連接了一個輔件功率放大器而不用內裝的放大器，嘟聲不發出哪聲。

線路之連接

注意

- 本機只能使用負極接地 12 V 直流電源。
- 連接以前，先拔取汽車電池的接地端子，以免發生短路。
- **紅色**和**黃色**電源輸入導線必須等所有電線都連接完畢以後才連接。
- 紅色電源輸入導線請連接到汽車發動機點火鑰匙被轉在輔助位置時才通電狀態的正 12 V 電源端子。
- **所有地線都必須連接到同一地點才行。**
- 將黃色導線連接到大於機器保險絲額定容量的沒利用的汽車電路上。
  如果把本機和其他立體聲組成機串聯了，所連接的汽車電路容量必須大於各組成機保險絲容量的總和。
  如果沒有自機器保險絲額定容量一樣大的汽車電路可資利用，可把機器直接連接到電池上。
  若無適當的汽車電路可用於連接本機，請把機器連接到大於機器保險絲容量的汽車電路。如此則為一當機器的保險絲燒掉了，也不致於切斷其他電路。

若要在汽車發動機點火鑰匙開關沒具輔助位置的汽車裡使用時 — POWER SELECT 開關

前板的照明燈在未出廠以前，被設定在即使不使用也會發亮的狀態。**若要在汽車發動機點火鑰匙開關沒具輔助位置的汽車裡使用本機的話，**此照明燈將會一直消耗微量的汽車電池電力。因此為了避免在這種狀態下的電池消耗，**請把本機底下的 POWER SELECT 開關設定在 ⓫ 之處，然後按壓前板的重調鍵。**關不使用本機時，照明燈便不發亮。

註

當您把 POWER SELECT（電源選擇）開關設定於 ⓫ 位置時，前面板用的注意警告聲不會響（打開）。

重調鍵

安裝和線路之連接完畢以後，請以原子筆等按壓重調鍵。取下前板時，即可看到重調鍵位於本機連接器左邊。

線路連接方塊圖

Example 1/Ejemplo 1/ 例 1

Example 2/Ejemplo 2/ 例 2

Note

If you connect an optional power amplifier and do not use the built-in amplifier, the beep tone will be disabled.

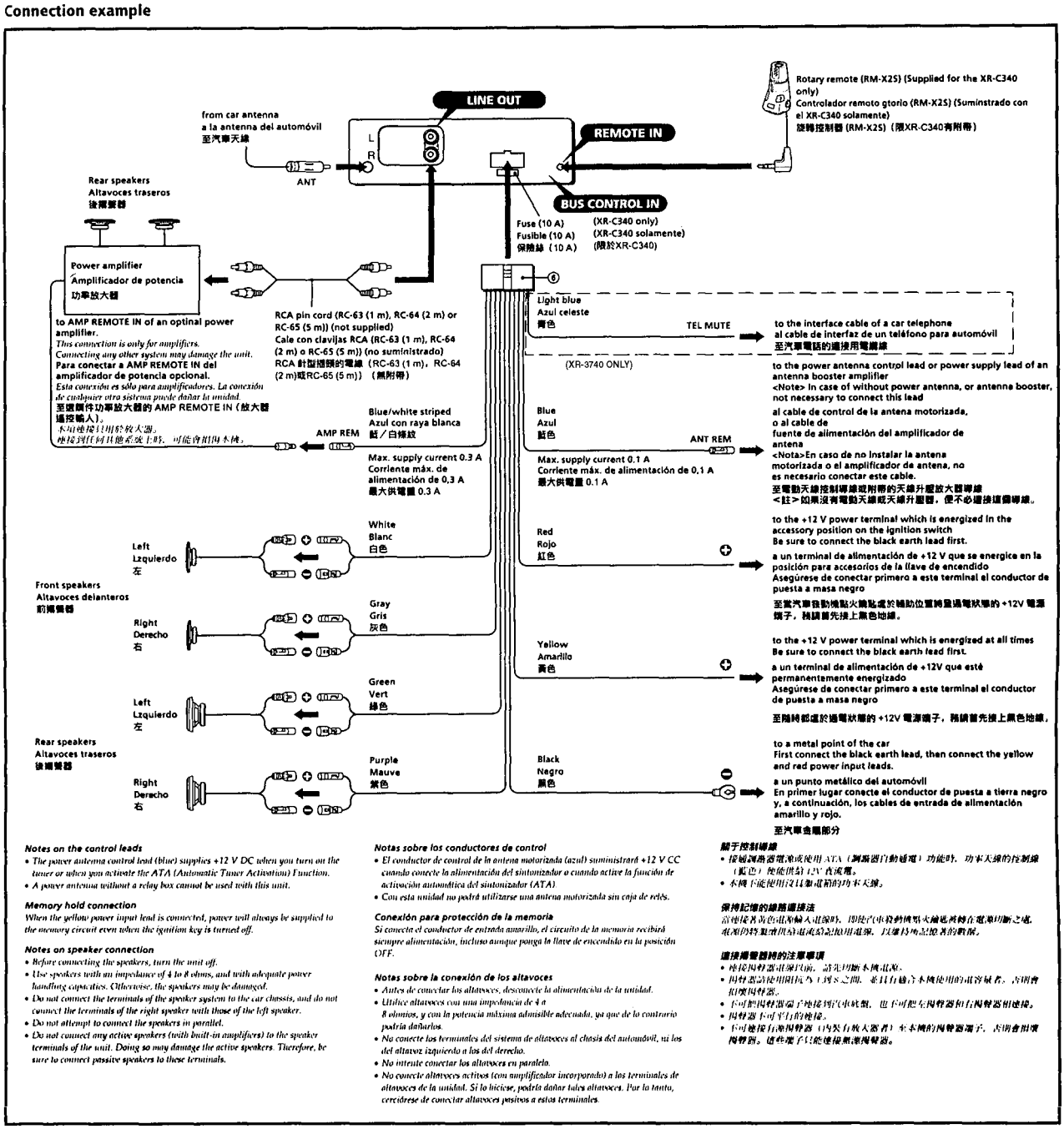
Nota

Si conecta un amplificador opcional de potencia y no utiliza el incorporado, el pitido se desactivará.

註

如果連接了一個輔件功率放大器而不用內裝的放大器，嘟聲不發出哪聲。

Connection example


LINE OUT
REMOTE IN
BUS CONTROL IN
from car antenna
a la antenna del automóvil
至汽車天線
ANT
L
R
Rotary remote (RM-X2S) (Supplied for the XR-C340 only)
Controlador remoto gtorio (RM-X2S) (Suministrado con el XR-C340 solamente)
旋轉控制器 (RM-X2S)（限XR-C340有附帶）
Rear speakers
Altavoces traseros
後揚聲器
Power amplifier
Amplificador de potencia
功率放大器
Fuse (10 A)
Fusible (10 A)
保險絲（10 A）
(XR-C340 only)
(XR-C340 solamente)
(限於XR-C340)
to AMP REMOTE IN of an optinal power amplifier.
This connection is only for amplifiers.
Connecting any other system may damage the unit.
Para conectar a AMP REMOTE IN del amplificador de potencia opcional.
Esta conexión es sólo para amplificadores. La conexión de cualquier otra sistema puede dañar la unidad.
至選購件功率放大器的 AMP REMOTE IN（放大器遙控輸入）。
本功能僅只用於放大器。
連接到任何其他系統上時，可能會損壞本機。
RCA pin cord (RC-63 (1 m), RC-64 (2 m) or RC-65 (5 m)) (not supplied)
Cale con clavijas RCA (RC-63 (1 m), RC-64 (2 m) o RC-65 (5 m)) (no suministrado)
RCA 針型插頭的電線（RC-63 (1 m)，RC-64 (2 m)或RC-65 (5 m)）（無附帶）
Light blue
Azul celeste
青色
TEL MUTE
to the interface cable of a car telephone
al cable de interfaz de un teléfono para automóvil
至汽車電話的連接用電纜線
(XR-3740 ONLY)
to the power antenna control lead or power supply lead of an antenna booster amplifier
<Note> In case of without power antenna, or antenna booster, not necessary to connect this lead
Blue
Azul
藍色
ANT REM
al cable de control de la antena motorizada,
o al cable de
fuente de alimentación del amplificador de antena
<Nota>En caso de no instalar la antena motorizada o el amplificador de antena, no es necesario conectar este cable.
至電動天線控制導線或附帶的天線升壓放大器導線
<註>如果沒有電動天線或天線升壓器，便不必連接這個導線。
Blue/white striped
Azul con raya blanca
藍／白條紋
AMP REM
Max. supply current 0.3 A
Corriente máx. de alimentación de 0,3 A
最大供電量 0.3 A
Max. supply current 0.1 A
Corriente máx. de alimentación de 0,1 A
最大供電量 0.1 A
White
Blanc
白色
Left
Lzquierdo
左
Front speakers
Altavoces delanteros
前揚聲器
Red
Rojo
紅色
to the +12 V power terminal which is energized in the accessory position on the ignition switch
Be sure to connect the black earth lead first.
a un terminal de alimentación de +12 V que se energice en la posición para accesorios de la llave de encendido
Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro
至點火開關的附件位置時會通電的 +12V 電源端子，務請首先接上黑色地線。
Gray
Gris
灰色
Right
Derecho
右
Yellow
Amarillo
黃色
to the +12 V power terminal which is energized at all times
Be sure to connect the black earth lead first.
a un terminal de alimentación de +12V que esté permanentemente energizado
Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro
至隨時都通電的 +12V 電源端子，務請首先接上黑色地線。
Green
Vert
綠色
Left
Lzquierdo
左
Rear speakers
Altavoces traseros
後揚聲器
Purple
Mauve
紫色
Right
Derecho
右
Black
Negro
黑色
to a metal point of the car
First connect the black earth lead, then connect the yellow and red power input leads.
a un punto metálico del automóvil
En primer lugar conecte el conductor de puesta a tierra negro y, a continuación, los cables de entrada de alimentación amarillo y rojo.
至汽車金屬部分

Notes on the control leads

- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) Function.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Notas sobre los conductores de control

- *El conductor de control de la antena motorizada (azul) suministrará +12 V CC cuando conecte la alimentación del sintonizador o cuando active la función de activación automática del sintonizador (ATA).*
- *Con esta unidad no podrá utilizarse una antena motorizada sin caja de relés.*

Conexión para protección de la memoria

Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición OFF.

Notas sobre la conexión de los altavoces

- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificador incorporado) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

關于控制導線

- *接通調諧器電源或使用 ATA（調諧器自動通電）功能時，功率天線的控制線（藍色）便能供給 12V 直流電。*
- *本機下能使用沒有繼電箱的功率天線。*

保持記憶的線路連接法

當連接著黃色電源輸入電線時，即使予(車鍵)轉動點火鑰匙將在電源切斷之後，電源仍將繼續供給記憶電路。

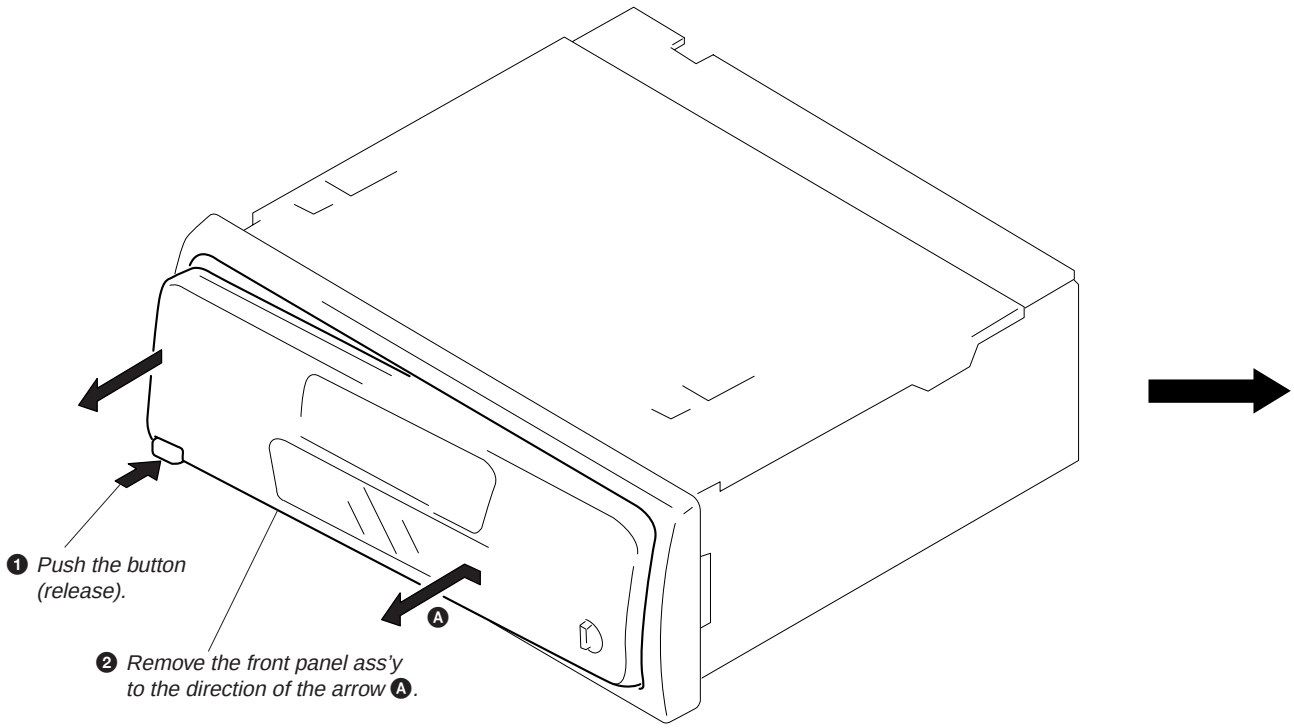
連接揚聲器時的注意事項

- *連接揚聲器電源以前，請先切斷本機電源。*
- *揚聲器請使用阻抗為 4 到 8 Ω 之間、並具有適合本機使用的電容量者，否則會損壞揚聲器。*
- *不可把揚聲器端子連接到汽車底盤，也不可把左揚聲器和右揚聲器相連接。*
- *揚聲器不可平行的連接。*
- *不可連接有源揚聲器（內裝有放大器者）至本機的揚聲器端子，否則會損壞揚聲器。這些端子只能連接無源揚聲器。*

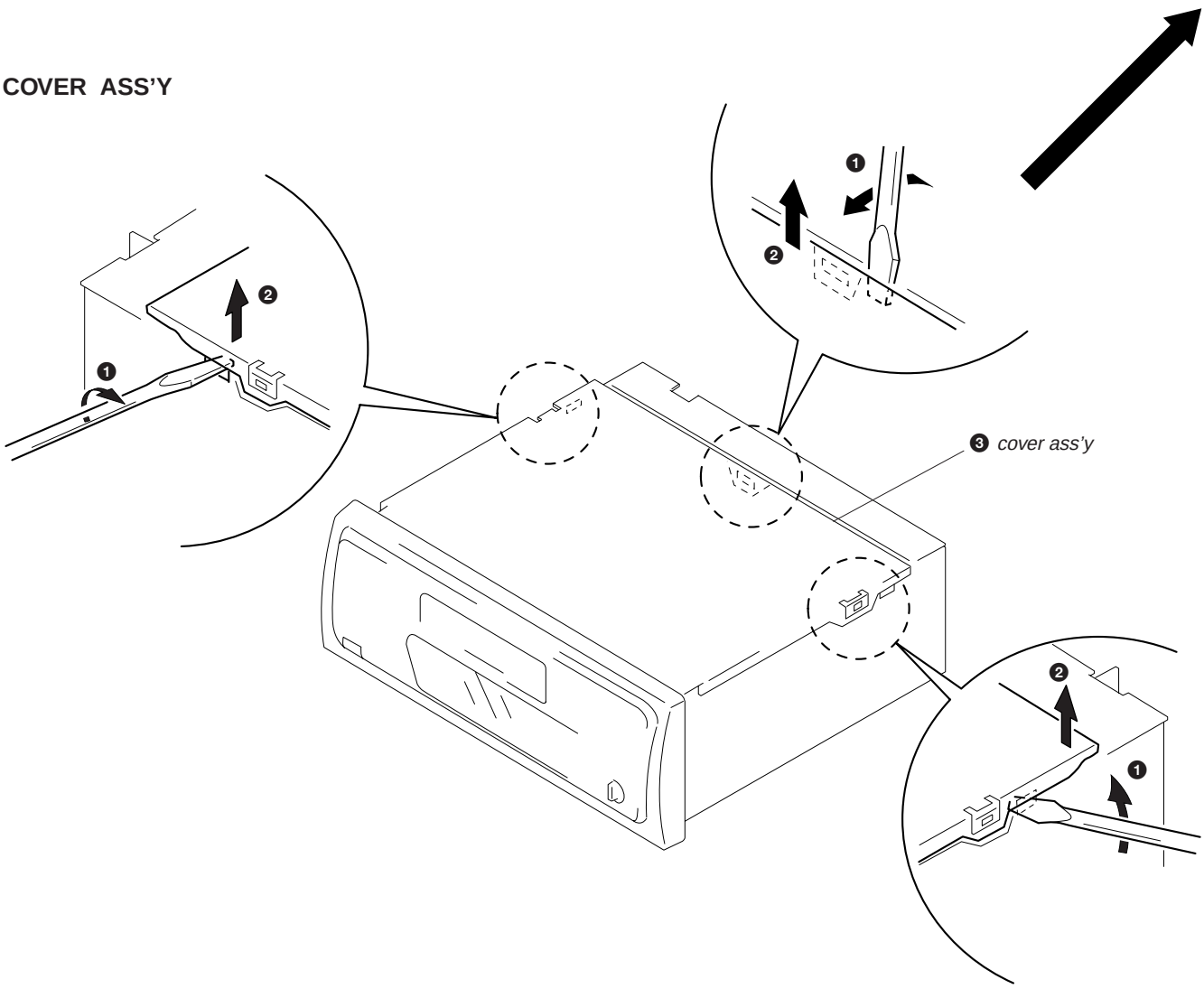
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

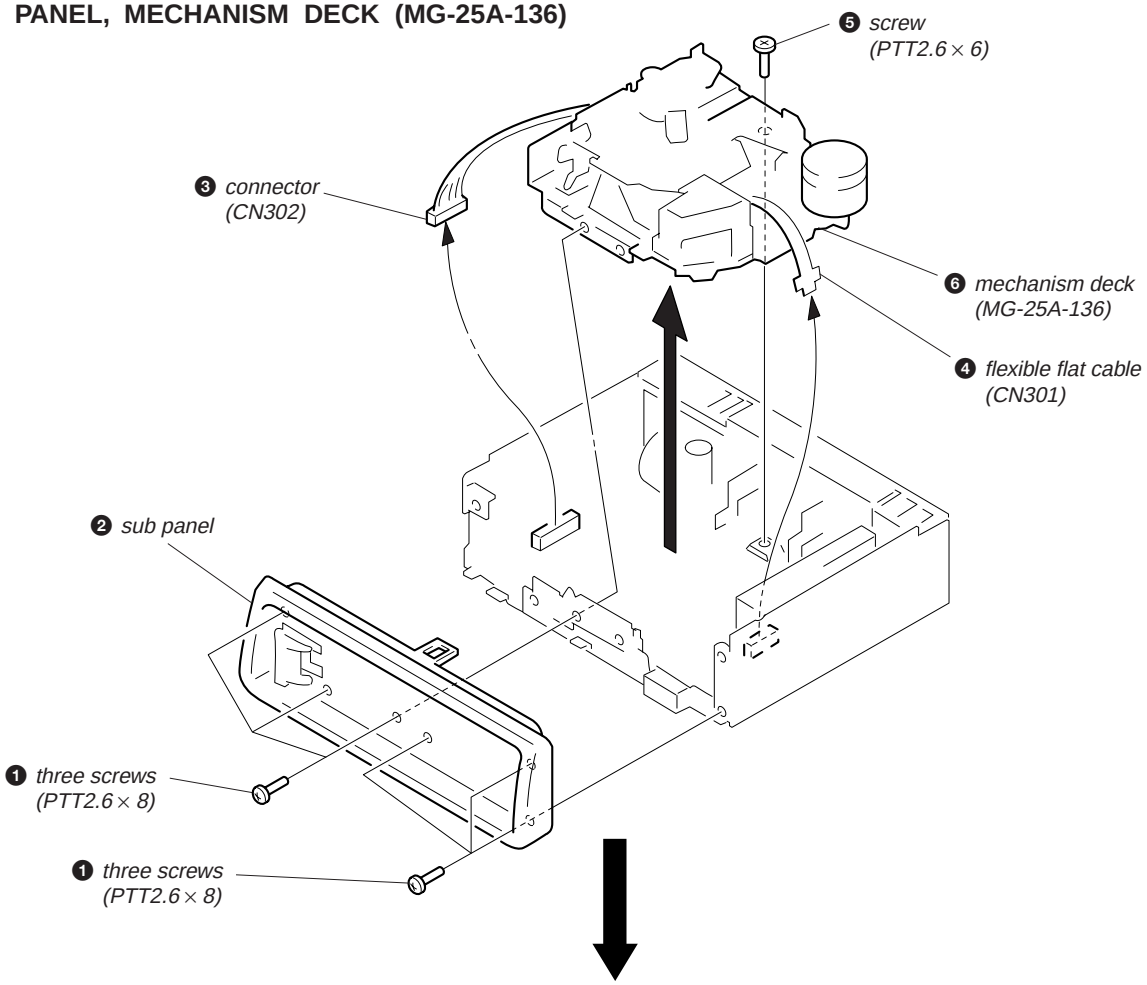
FRONT PANEL ASS'Y



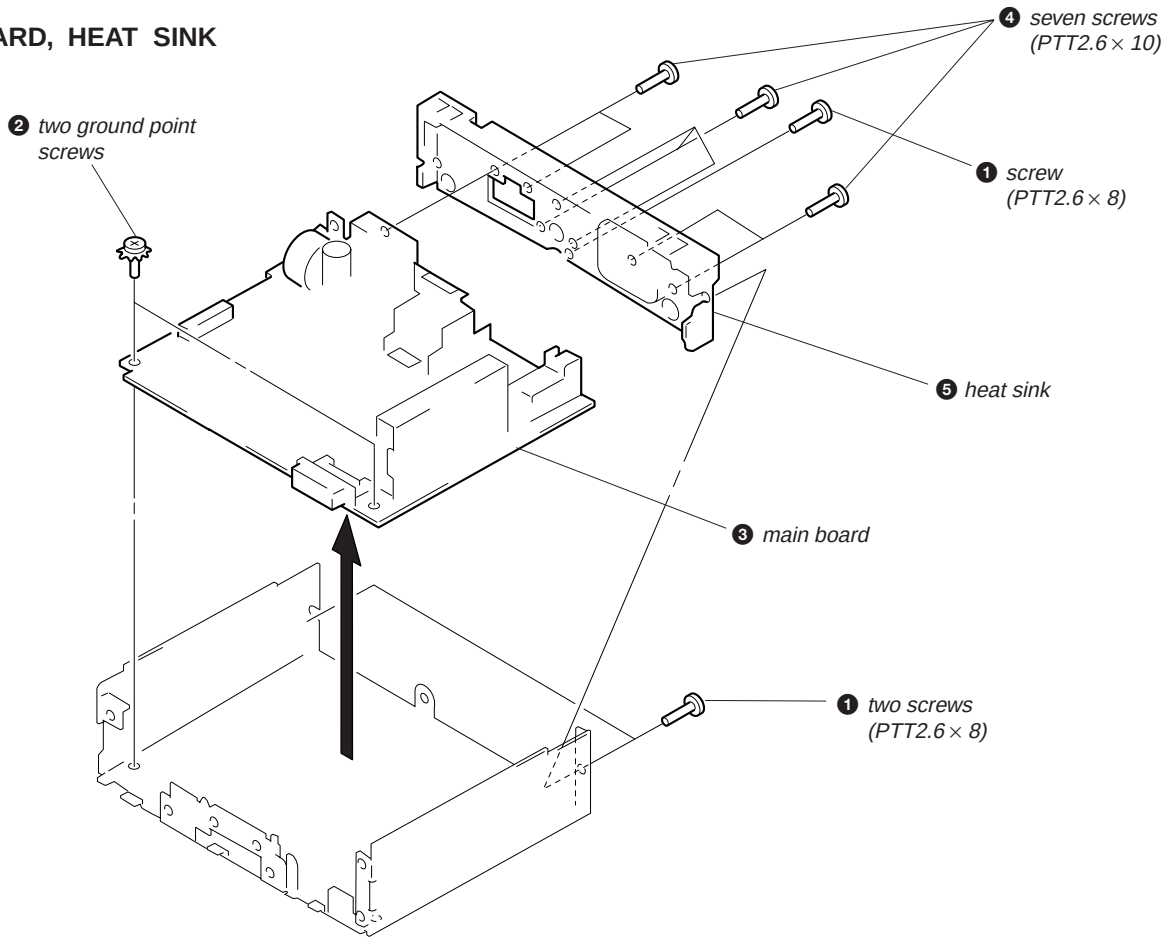
COVER ASS'Y



SUB PANEL, MECHANISM DECK (MG-25A-136)



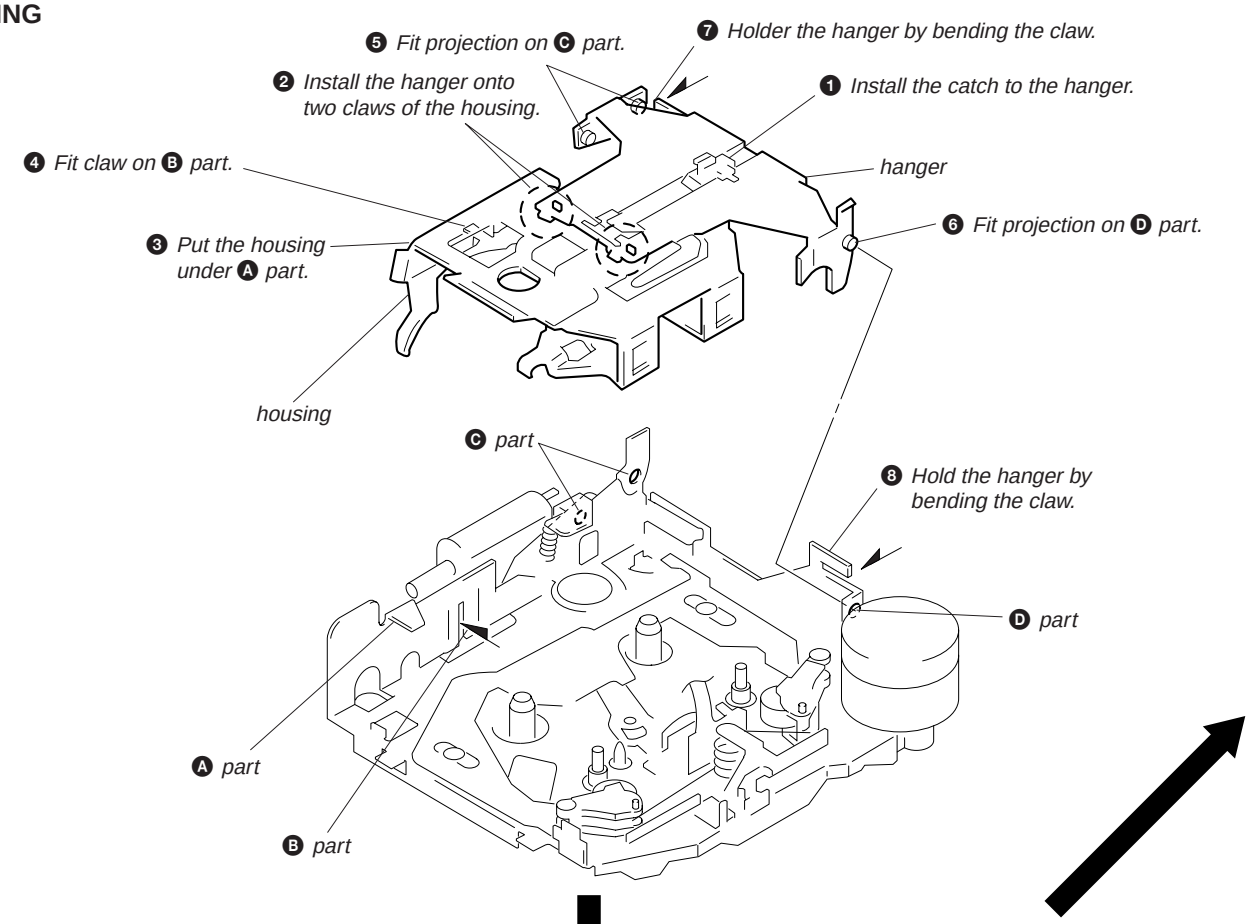
MAIN BOARD, HEAT SINK



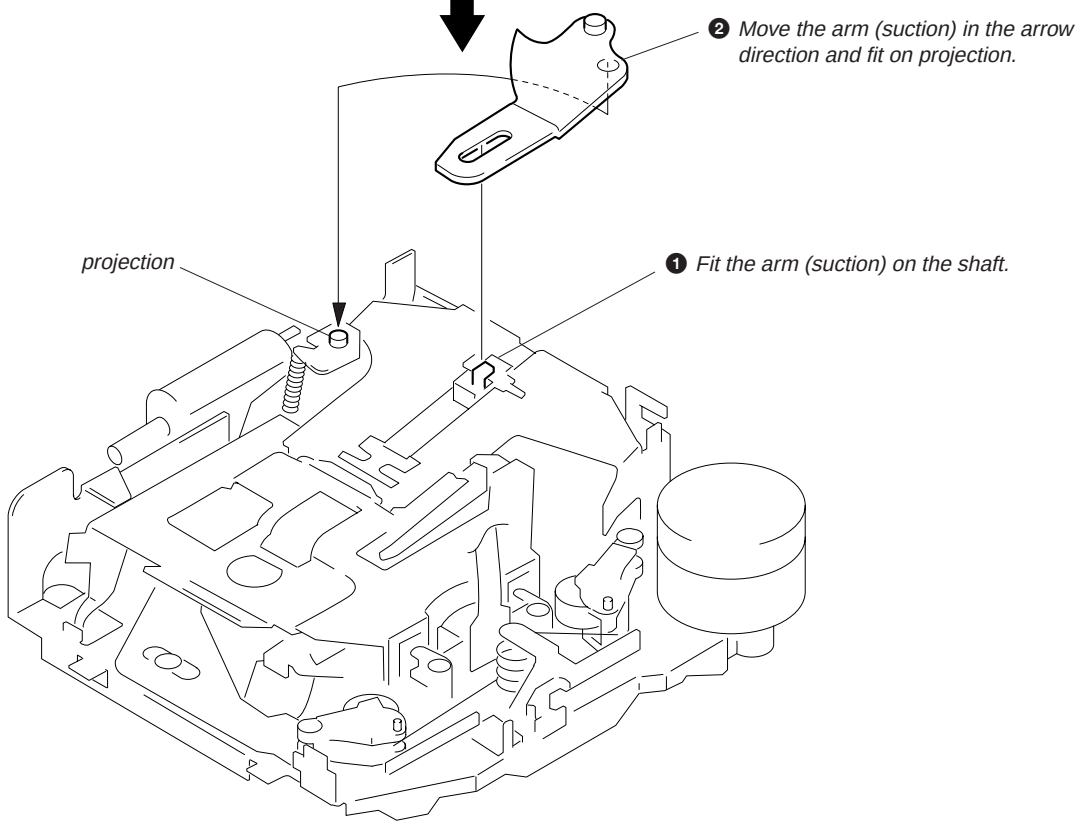
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

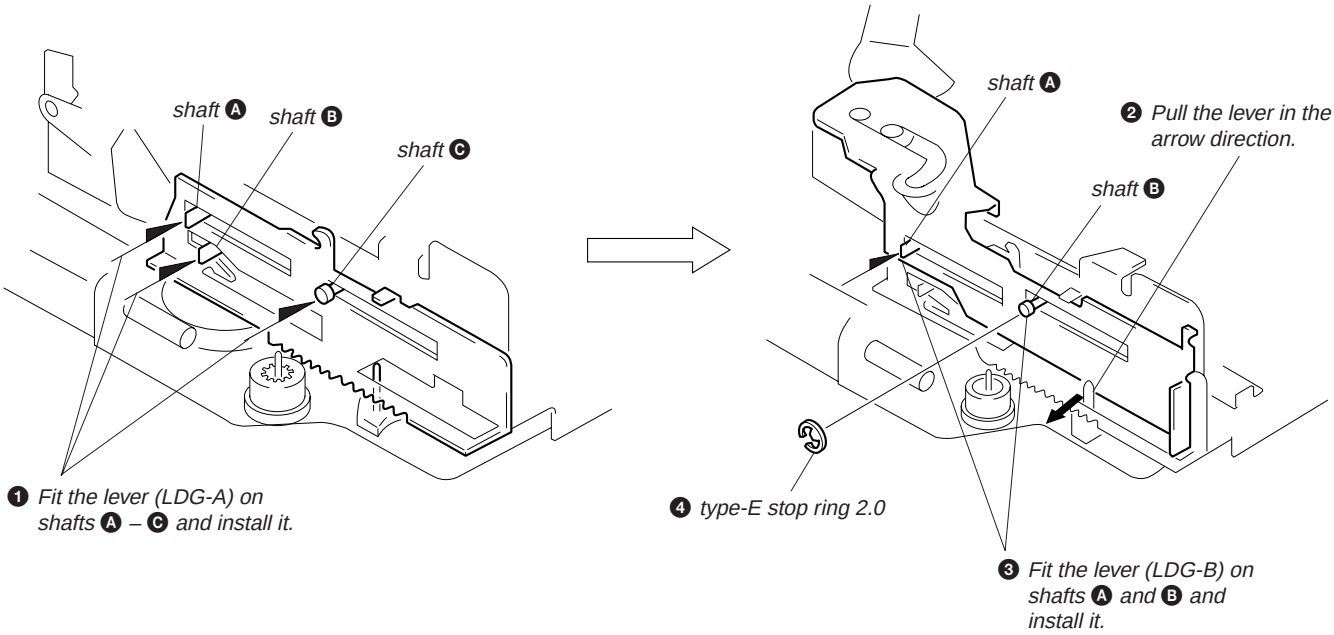
HOUSING


❺ Fit projection on Ⓒ part.
❼ Holder the hanger by bending the claw.
❷ Install the hanger onto two claws of the housing.
❶ Install the catch to the hanger.
❹ Fit claw on Ⓑ part.
hanger
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

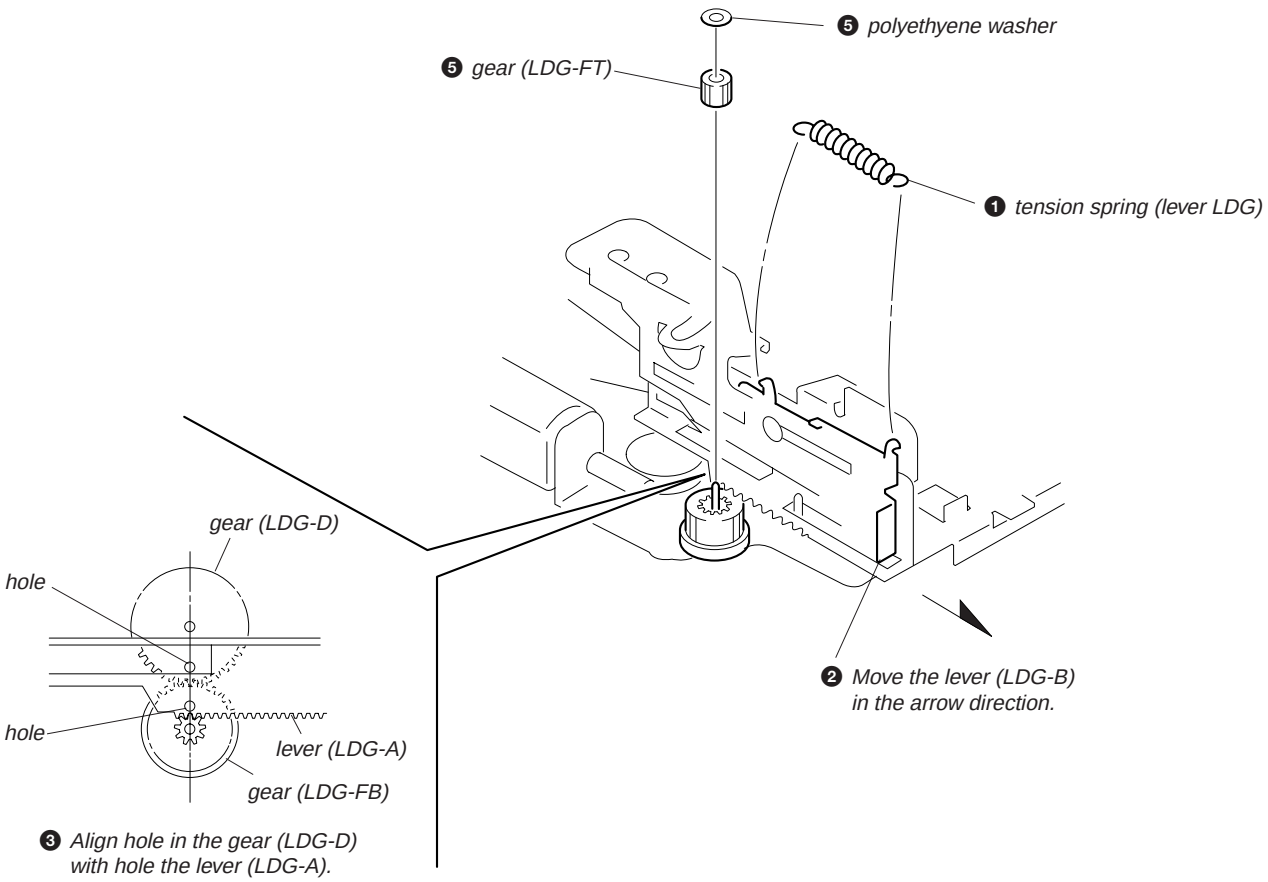
ARM (SUCTION)



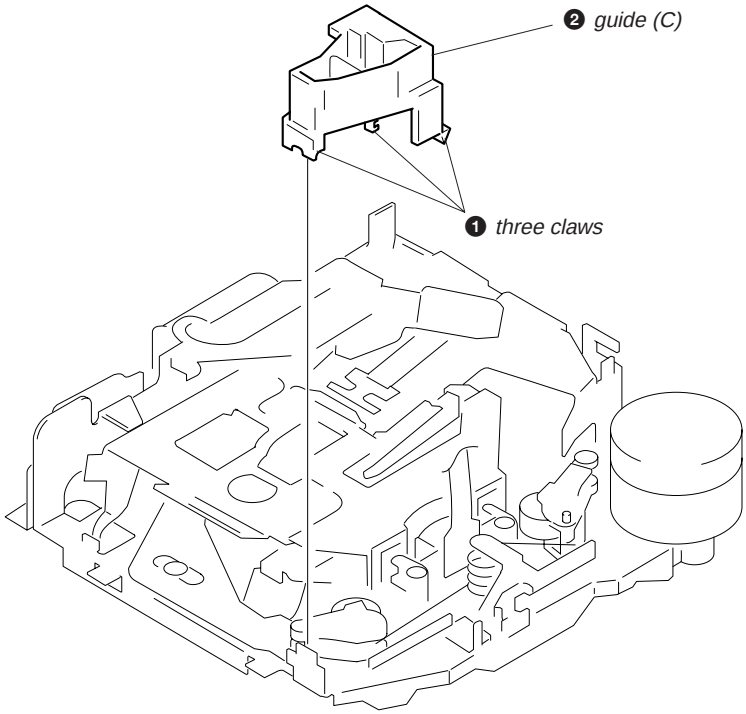
LEVER (LDG-A) / (LDG-B)


shaft A
shaft B
shaft C
❶ Fit the lever (LDG-A) on shafts A – C and install it.
shaft A
❷ Pull the lever in the arrow direction.
shaft B
❹ type-E stop ring 2.0
❸ Fit the lever (LDG-B) on shafts A and B and install it.

GEAR (LDG-FT)


❺ polyethyene washer
❺ gear (LDG-FT)
❶ tension spring (lever LDG)
gear (LDG-D)
hole
hole
lever (LDG-A)
gear (LDG-FB)
❸ Align hole in the gear (LDG-D) with hole the lever (LDG-A).
❷ Move the lever (LDG-B) in the arrow direction.

GUIDE (C)



SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idlers
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torqu Meter	Meter Reading
Forward	CQ-102C	30 - 65 g•cm (0.42 - 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.5 - 4.5g•cm (0.01 - 0.06 oz•inch)
Reverse	CQ-102RC	30 - 65 g•cm (0.42 - 0.90 oz•inch)
Reverse Back Tension	CA-102RC	0.5 - 4.5g•cm (0.01 - 0.06 oz•inch)
FF, REW	CQ-201B	60 - 200 g•cm (0.83 - 2.78 oz•inch)

• Tape Tension Measurement

Mode	Torqu Meter	Meter Reading
Forward	CQ-403A	more than 90 g (more than 3.18 oz)
Reverse	CQ-403R	more than 90 g (more than 3.18 oz)

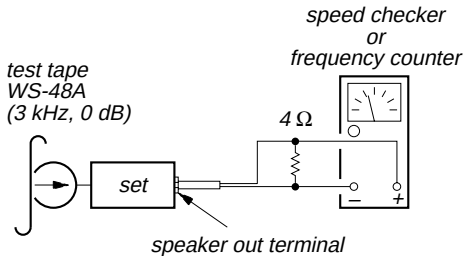
SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | **0 dB=0.775 V**

Tape Speed Adjustment

Procedure:

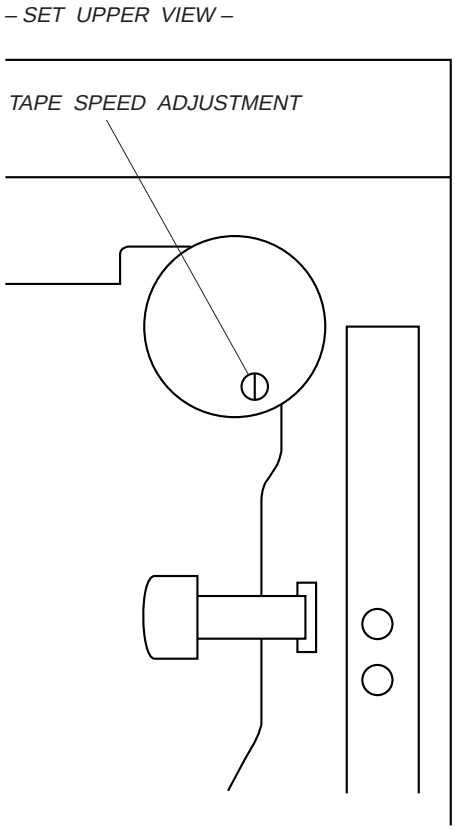
1. Put the set into the FWD PB mode.



Specification: Constant speed

Speed checker	Frequency counter
–1.5 to +2.5%	2,955 to 3,075 Hz

Adjustment Location:



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

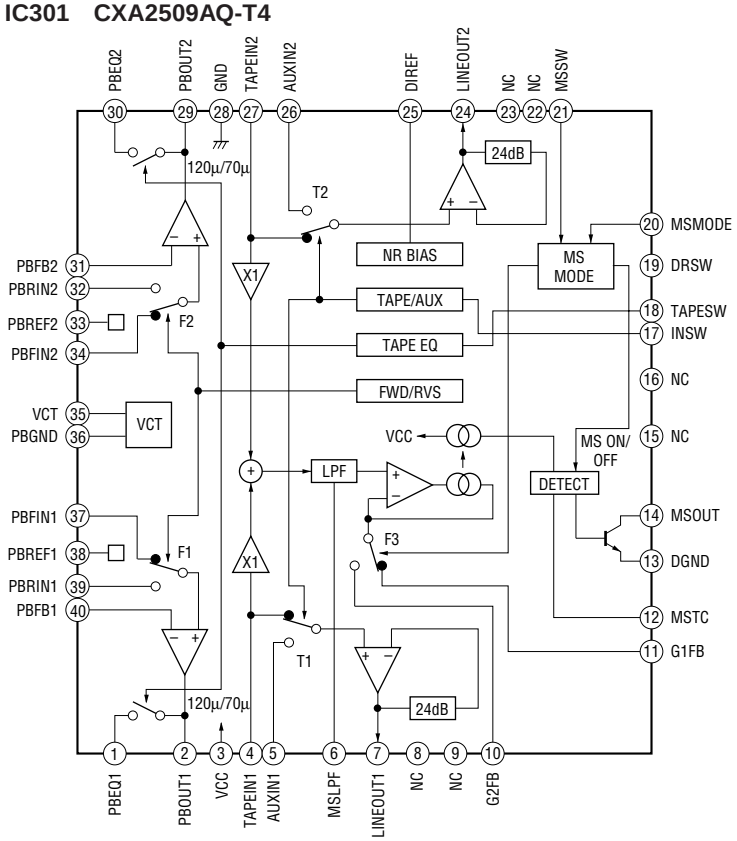
• MAIN BOARD IC501 µD17708GC-545-3B9 (MASTER CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	ILLIN	I	ILLIN signal detection pin
2, 3	POS3, POS2	I	Tape position detection pin
4, 5	POS0, POS1		
6	TAPEON	O	Tape power supply control pin
7	CM_ON	O	Capstan motor control pin
8	LM_LOD	O	Loading motor control pin (loading direction)
9	LM_EJ	O	Loading motor control pin (eject direction)
10	TUNON	O	Tuner power supply control pin
11	FM_ON	O	FM power supply control pin
12	PW_ON	O	System power supply control pin
13	MUT	O	System muting control pin At muting: “H”
14	VOLCE	O	Chip enable output pin to electrical volume
15	VOLCLO	O	Clock output pin to electrical volume
16	VOLSO	O	Data output pin to electrical volume
17	AMPON	O	Power amp power supply control pin
18	$\overline{\text{AMPMUT}}$	O	Power amp muting control pin At muting: “L”
19	$\overline{\text{DX}}$_LO	O	DX/local selection control pin
20	$\overline{\text{AM\_MONO}}$	O	AM forced monaural signal output pin
21	GND	–	GND
22	DSTSEL	I	Destination setting pin (A/D input)
23	D-BASS	I	D-BASS switch input pin (A/D input)
24, 25	KEYIN1, KEYIN0	I	Key input pin (A/D input)
26	RC_IN0	I	Rotary remote commander input pin (A/D input)
27	VSM	I	FM/AM signal meter voltage detection pin (A/D input)
28	AMIFIN	I	AM (MW, SW) IF input pin
29	FMIFIN	I	FM IF input pin
30	VDD2	–	Power supply
31	FM_OSC	I	FM OSC signal input pin
32	AM_OSC	I	AM OSC signal input pin
33	GND	–	GND
34	N.C	–	Not used
35	EOI	O	Main charge-pump output pin
36	TEST0	I	Test pin
37	$\overline{\text{AM\_STIN}}$	I	AM stereo signal input pin
38	SEKOUT	O	SEEK control signal output pin
39	$\overline{\text{MW}}$_SW	O	MW/SW power supply select pin
40	BEEP	O	Beep sound output pin
41	KEYACK	O	Key acknowledge signal input pin
42	BU_IN	I	Back up power supply detection pin
43	MTLSEL	I/O	METAL control input/output pin At initial mode: auto/manual selection input of METAL function “L”: manual At manual mode: METAL on/off output “H”: on At auto mode: input at ⑲ MTLIN

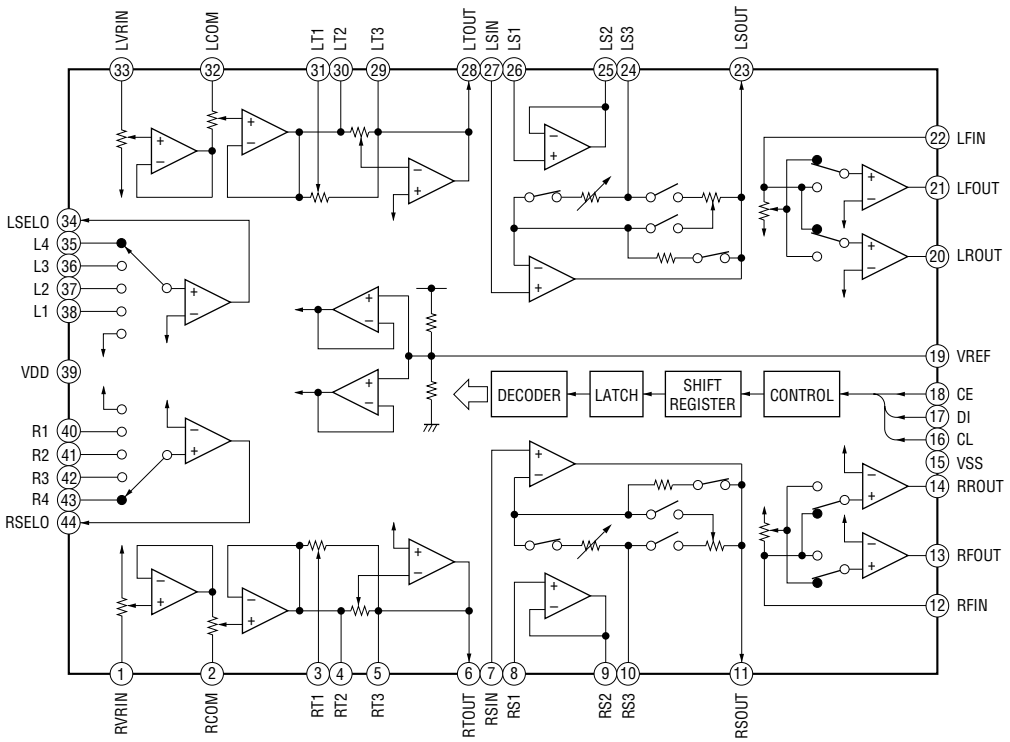
Pin No.	Pin Name	I/O	Function
44	DOLON	I/O	DOLBY control input/output pin At initial mode: valid/invalid selection input of DOLBY function At normal mode: DOLBY on/off output
45	$\overline{\text{AMSIN}}$	I	Tape mucic with/without detection pin "L": with music
46	ST	I/O	Stereo detection signal input and forced monaural signal output pin
47	$\overline{\text{AMS\_ON}}$	O	At AMS: "L"
48	N_$\overline{\text{R}}$OUT	O	Forward/reverse control pin
49	TAPMUT	O	Tape muting control pin At muting: "H"
50	ILLON	O	Illumination power supply control pin At PW SEL on: ACC on: "H" At PW SEL off: ACC on: "H"
51	SD_IN	I	Station detection signal input pin
52	$\overline{\text{NOSESW}}$	I	Front panel removal or attaching detection pin
53	$\overline{\text{TELMUT}}$	I	Telephone muting detection pin "L": 20dB audio muting
54	REL	I	Reel table rotation detection pin
55	$\overline{\text{ACCIN}}$	I	Accessory voltage detection pin
56	$\overline{\text{TESTIN}}$	I	Test mode setting pin
57	RC_IN1	I	Rotary remote commander input pin (A/D input)
58	PW_SEL	I	Power select switch input pin
59	$\overline{\text{MTLIN}}$	I	AUTO METAL detection pin "L": METAL (Fixed at "H" in this set)
60	$\overline{\text{AD\_ON}}$	O	Power supply control pin for A/D conversion
61	KEYSEL	I	Key function setting pin
62	SOUTSEL	I	Active select pin for ㊳ SEKOUT
63	COLORSEL	I	Illumination color setting pin "L": amber,"H": green
64	LCDCE	O	LCD chip enable output pin
65	LCDCKO	O	LCD clock output pin
66	LCDSO	O	LCD data output pin
67	$\overline{\text{LCDINH}}$	O	LCD brank indication control pin
68	UNICKI	I	Clock input pin (for SONY BUS)
69	UNISO	O	Data output pin (for SONY BUS)
70	UNISI	I	Data input pin (for SONY BUS) (Fixed at "L" in this set)
71	UNICKO	O	Clock output pin (for SONY BUS)
72	$\overline{\text{BUSON}}$	O	BUS ON control signal output pin (for SONY BUS)
73	$\overline{\text{SYSRST}}$	O	System reset signal output pin
74	VREG	O	CPU regurator output pin
75	GND	–	GND
76	X_OUT	O	System clock output pin (4.5MHz)
77	X_IN	I	System clock input pin (4.5MHz)
78	CE	I	Fixed at "L"
79	VDD1	–	Power supply
80	$\overline{\text{RESET}}$	I	Reset input pin

• IC Block Diagrams
(MAIN BOARD)

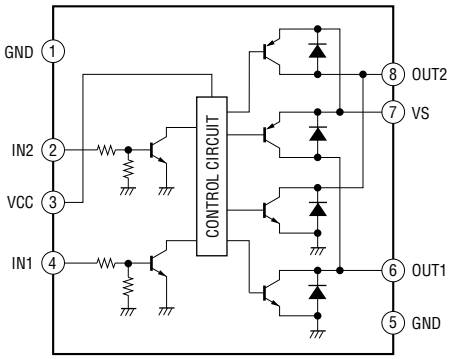
IC301 CXA2509AQ-T4



IC331 LC75373ED

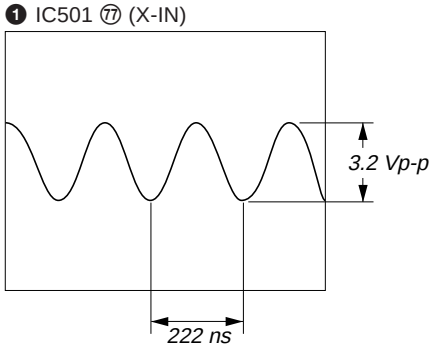


IC351 MM1322XFBE

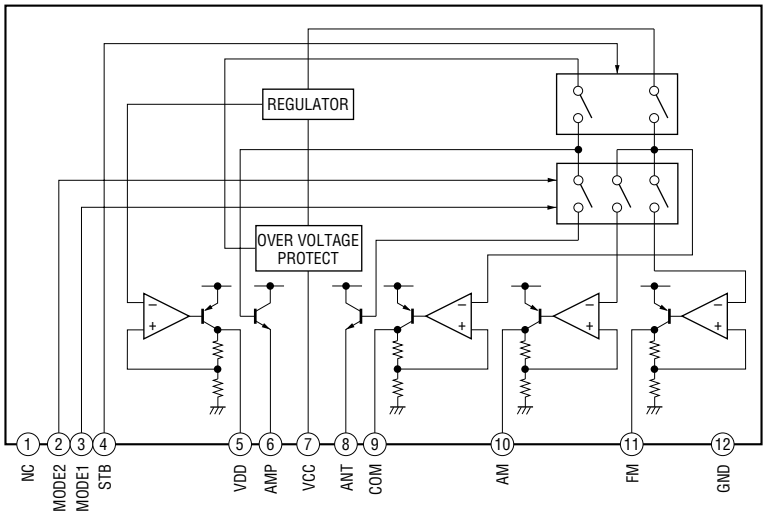


• Waveform

❶ IC501 ⑰ (X-IN)



IC611 BA3918-V2



6-2. PRINTED WIRING BOARD – MAIN Section –

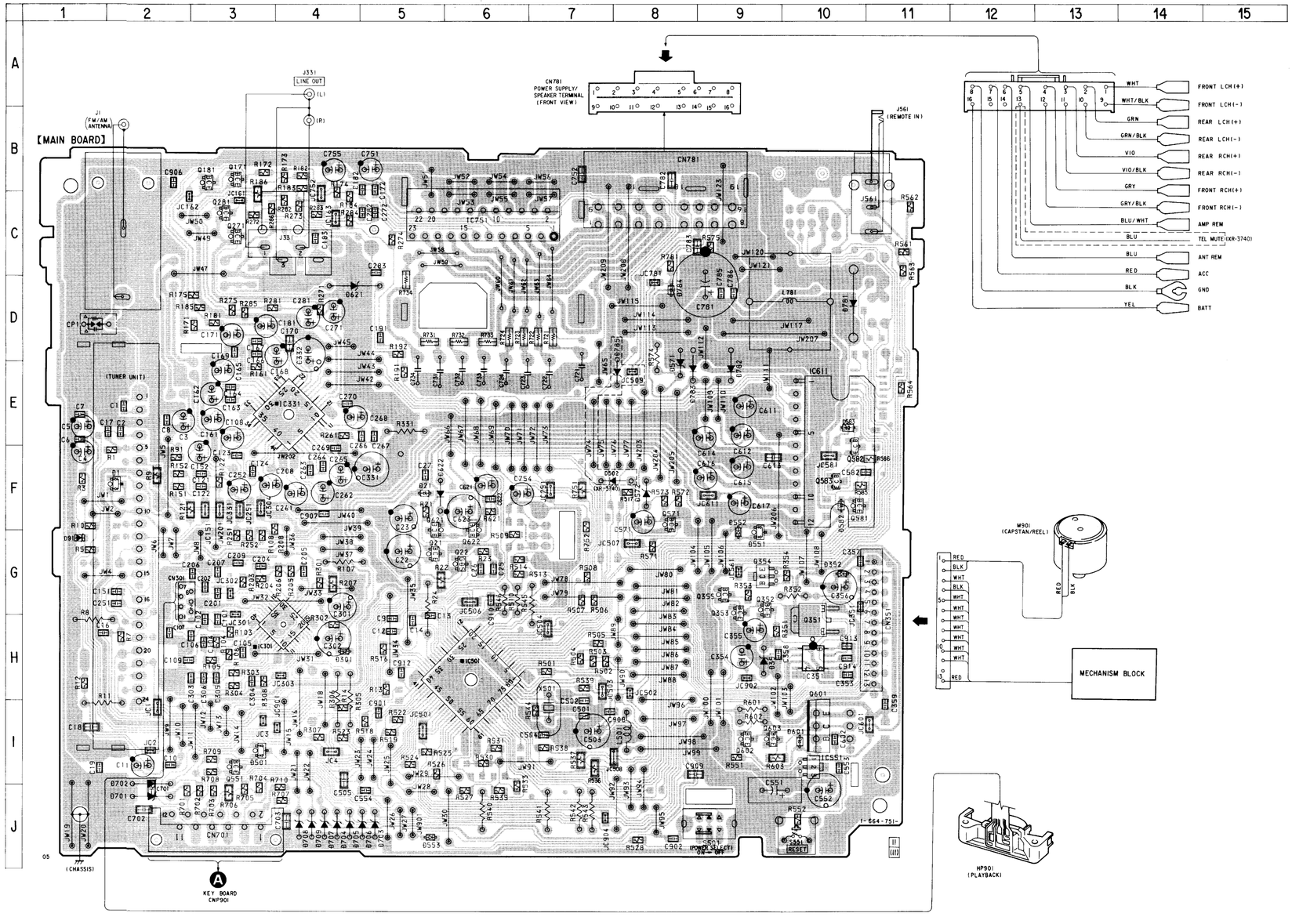
SEE ADDITIONAL INFORMATION

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	F-2	D785	E-8
D21	F-5		
D91	G-1	IC301	H-3
D301	H-4	IC331	E-4
D351	H-9	IC351	H-10
D352	G-10	IC501	H-6
D501	I-3	IC551	I-10
D502	F-7	IC611	E-10
D551	G-9	IC751	C-6
D552	G-9		
D553	J-5	Q21	G-5
D571	E-8	Q22	G-6
D572	F-8	Q171	B-3
D582	F-10	Q181	B-3
D583	E-10	Q271	C-3
D601	I-10	Q281	C-3
D621	D-4	Q351	H-10
D622	F-5	Q352	G-9
D701	J-2	Q353	G-9
D702	J-2	Q354	G-9
D703	J-5	Q355	G-9
D704	J-4	Q551	I-3
D705	J-4	Q571	F-8
D706	J-5	Q581	F-10
D707	J-4	Q582	F-10
D708	J-4	Q583	F-10
D709	J-4	Q601	I-10
D781	D-10	Q602	I-9
D782	E-9	Q603	I-9
D783	E-8	Q621	F-5
D784	D-8	Q622	G-6

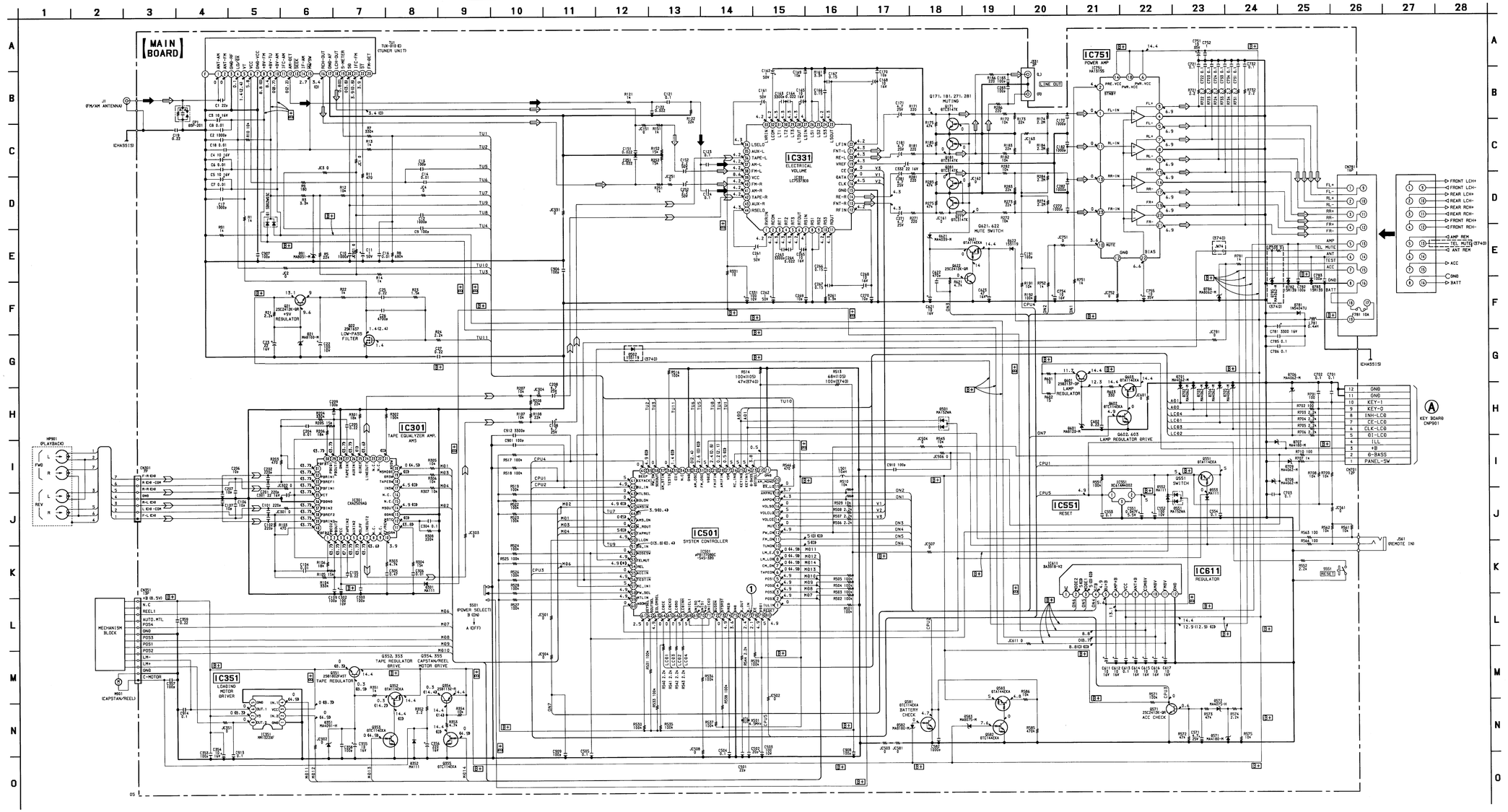
Note on Printed Wiring Board:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing.



6-3. SCHEMATIC DIAGRAM – MAIN Section – • See page 16, 17 for IC Block Diagrams. • See page 17 for Waveform.

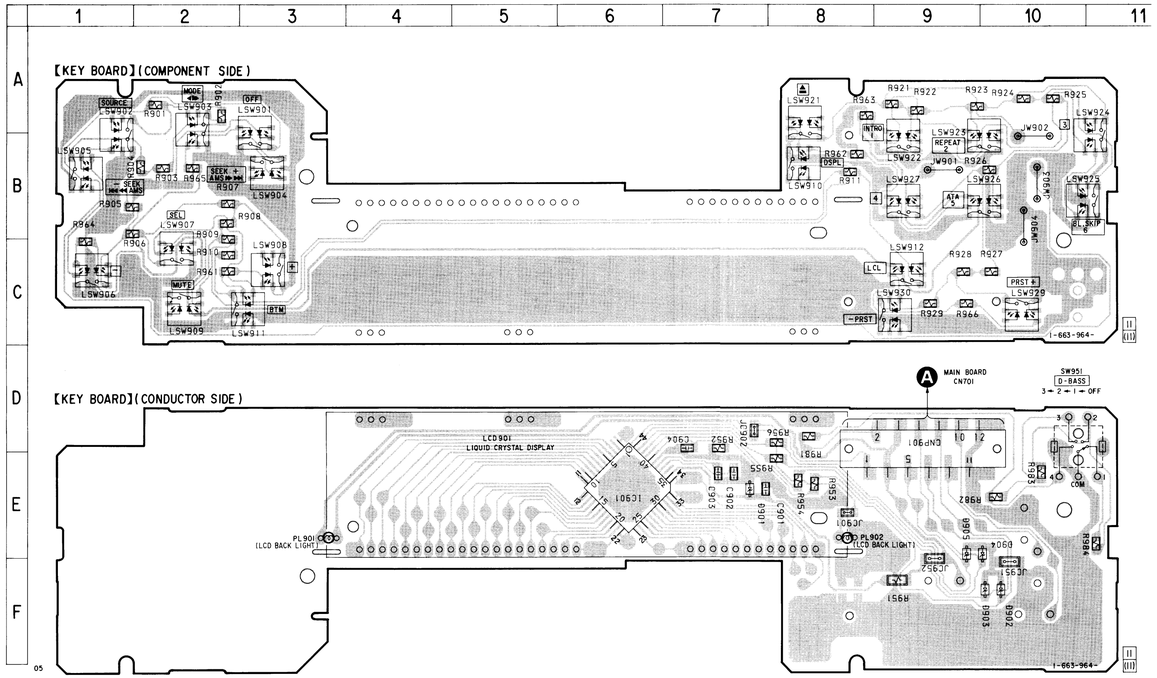
SEE ADDITIONAL INFORMATION



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantaliums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  << >> : TAPE (PLAY)
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : TAPE (PLAY)
  ⇨ : BUS AUDIO IN
- Abbreviation
  105: EXR-105
  3740: XR-3740

6-4. PRINTED WIRING BOARD – KEY Section –



• Semiconductor Location

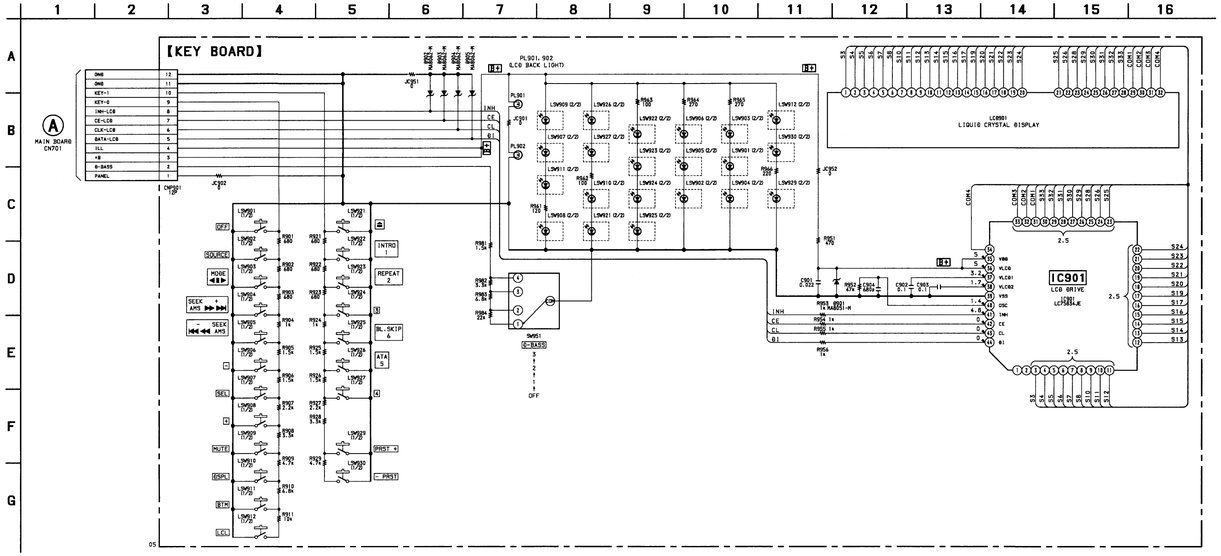
Ref. No.	Location
D901	E-7
D902	F-10
D903	F-10
D904	E-10
D905	E-9
IC901	E-6

Note on Printed Wiring Board:
- ○——○ : parts extracted from the component side.
- ▒▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.

6-5. SCHEMATIC DIAGRAM – KEY Section –



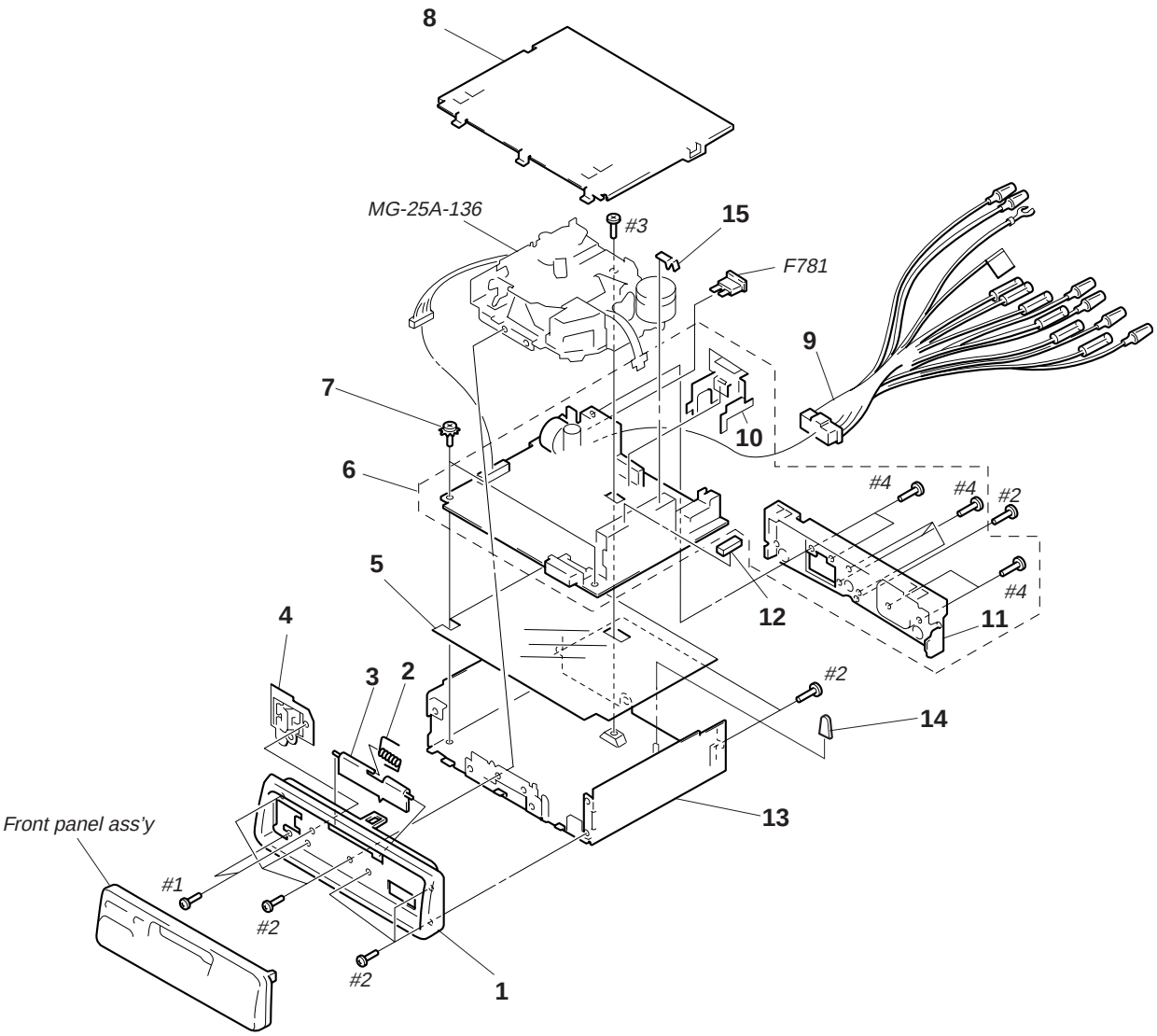
Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- [ ] : panel designation.
- [B+] : B+ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

SECTION 7
EXPLODED VIEWS

NOTE:

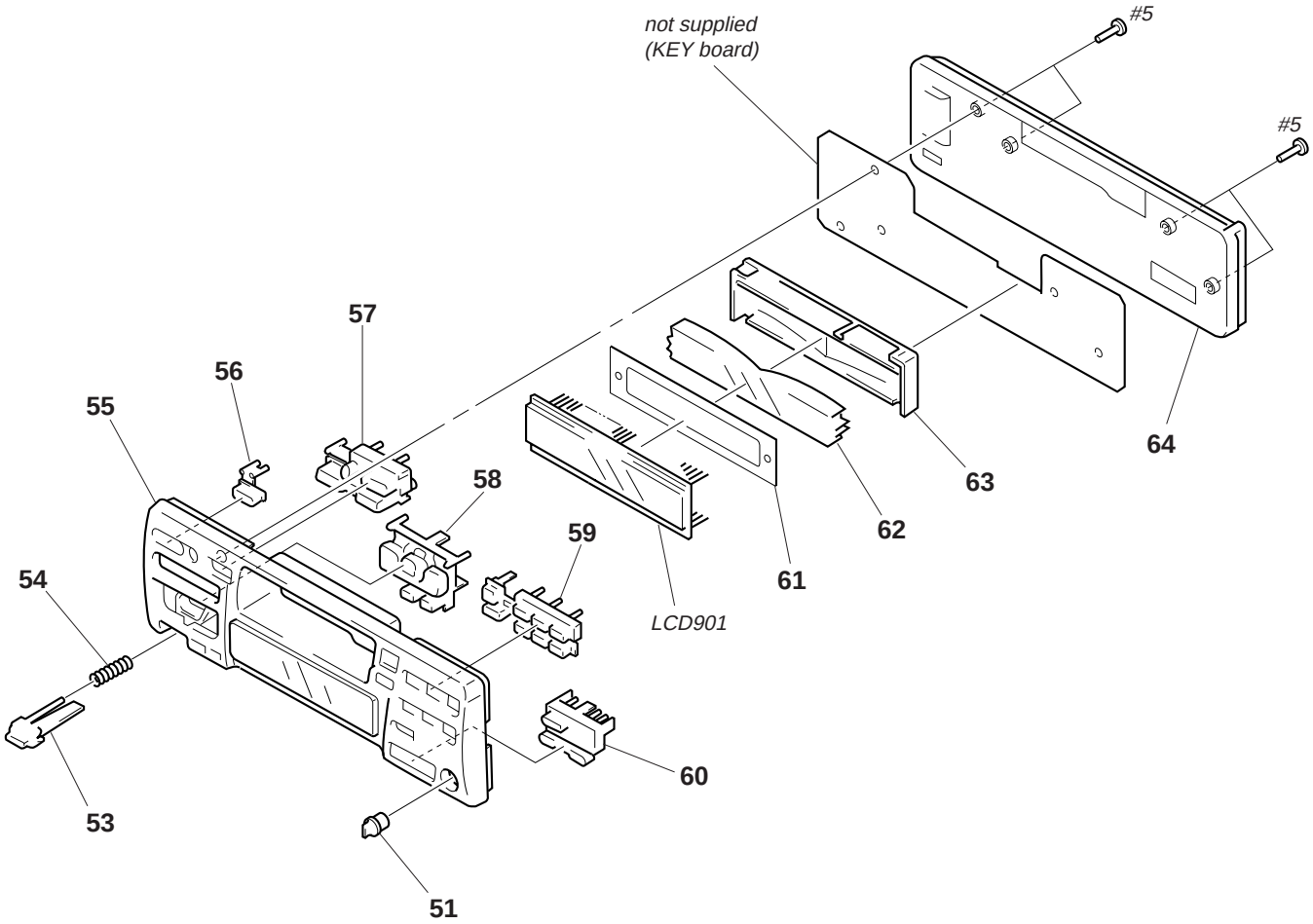
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hard ware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION



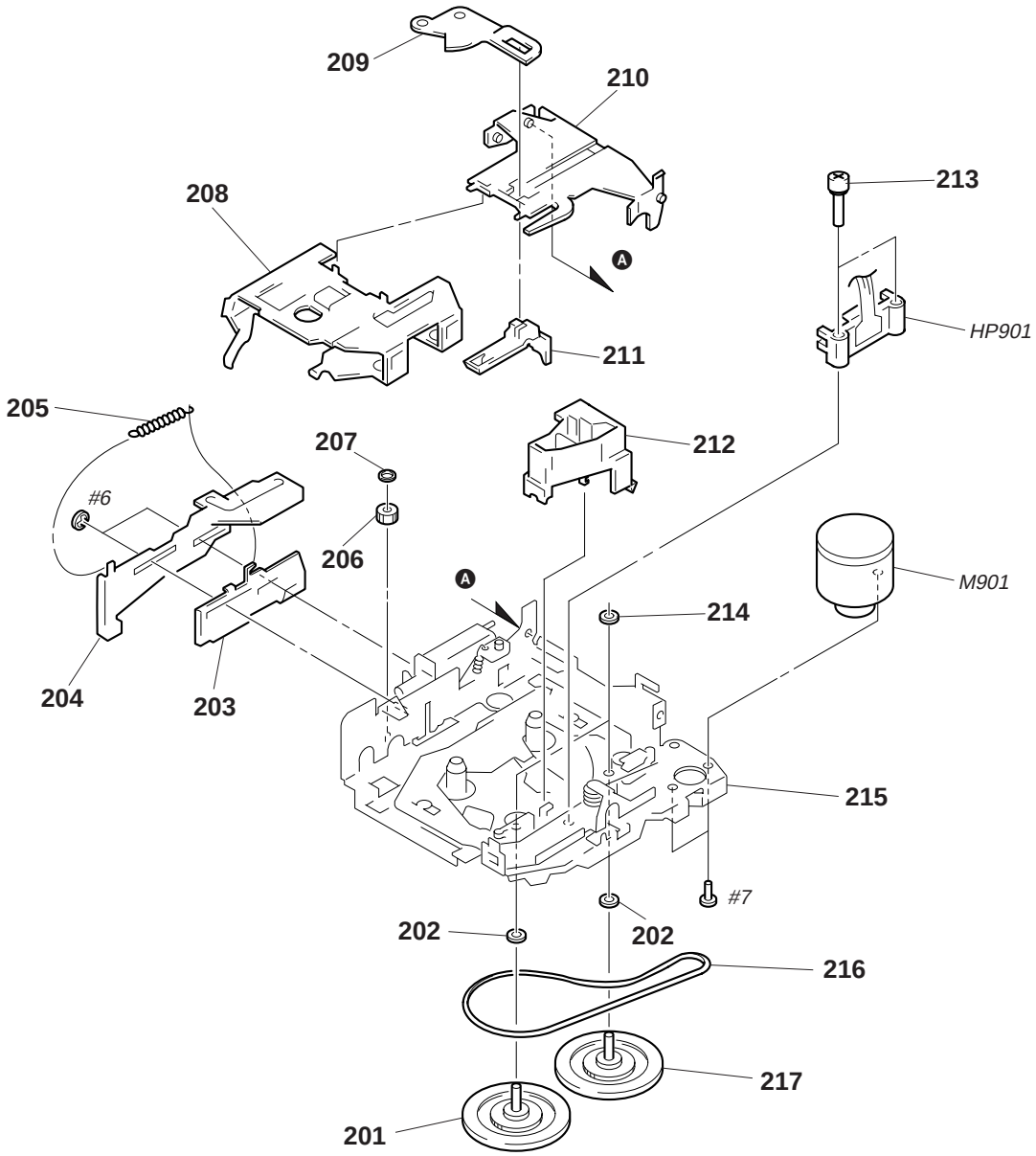
Ref. No.	Part No.	Description	Remark
1	3-009-294-01	PANEL, SUB	
2	3-935-003-01	SPRING, TORSION	
3	3-932-205-61	DOOR, CASSETTE	
4	X-3367-636-1	LOCK ASSY	
* 5	3-010-377-01	INSULATOR	
* 6	A-3309-735-A	MAIN BOARD, COMPLETE (EXR-105)	
* 6	A-3309-794-A	MAIN BOARD, COMPLETE (XR-3740)	
7	3-915-923-01	SCREW, GROUND POINT	
* 8	X-3373-270-1	COVER ASSY	
9	1-776-207-11	CORD (WITH CONNECTOR) (POWER)	(XR-3740)
9	1-776-207-31	CORD (WITH CONNECTOR) (POWER)	(EXR-105)
* 10	3-009-809-01	BRACKET (IC)	
* 11	3-009-815-01	HEAT SINK (BUS NON)	
12	9-911-840-XX	CUSHION (U)	
* 13	3-009-813-01	CHASSIS	
* 14	3-012-859-01	CAP (25), RUBBER	
15	3-937-650-01	PLATE (C), GROUND	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-010-396-01	KNOB (D-BASS)	
53	3-010-398-01	BUTTON (RELEASE)	
54	3-010-395-01	SPRING (RELEASE)	
55	X-3373-676-1	PANEL SUB ASSY (EXR-105)	
55	X-3373-677-1	PANEL SUB ASSY (XR-3740)	
56	3-010-383-01	BUTTON (SOURCE)	
57	3-010-384-01	BUTTON (M. O. S) (● . OFF. – ⏮ ◀◀. SEEK AMS. + ▶▶ ⏭)	
58	3-010-386-01	BUTTON (B. M. +/–) (– . SEL. +. MUTE. SENS)	
59	3-010-387-01	BUTTON (PRESET) (⏏ . 1. 2. 3. 4. 5. 6. DSPL)	
60	3-010-392-01	BUTTON (L. P) (LCL. –. PRST. +)	
* 61	3-010-375-01	SHEET (REFLECTOR)	
* 62	3-010-393-01	PLATE (LCD), LIGHT GUIDE	
* 63	3-010-394-01	HOLDER (LCD)	
64	3-010-382-01	PANEL, FRONT BACK	
LCD901	1-801-588-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-25A-136)



Ref. No.	Part No.	Description	Remark
201	A-3291-667-A	CLUTCH (FR) ASSY	
202	3-701-437-21	WASHER	
* 203	3-008-883-01	LEVER (LDG-A)	
* 204	3-008-884-01	LEVER (LDG-B)	
205	3-008-890-01	SPRING (LEVER LDG), TENSION	
206	3-933-335-01	GEAR (LDG-FT)	
207	3-341-753-11	WASHER, POLYETHYLENE	
208	3-008-861-01	HOUSING	
* 209	3-008-882-01	ARM (SUCTION)	
210	3-008-860-01	HANGER	
211	3-008-874-02	CATCHER	
212	3-933-344-01	GUIDE (C)	
213	3-927-100-01	SCREW (+PS 2X10), SPECIAL	
214	3-364-151-01	WASHER	
215	A-3291-919-A	CHASSIS ASSY (A)	
216	3-928-675-01	BELT (52)	
217	3-936-853-01	FLYWHEEL (F)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

KEY

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
*	3-010-375-01	SHEET (REFLECTOR)			
*	3-010-393-01	PLATE (LCD), LIGHT GUIDE			
*	3-010-394-01	HOLDER (LCD)			
		< CAPACITOR >			
C901	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
		< CONNECTOR >			
CNP901	1-764-423-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	8-719-420-90	DIODE MA8051-M			
D902	8-719-422-64	DIODE MA8062-M			
D903	8-719-422-64	DIODE MA8062-M			
D904	8-719-422-64	DIODE MA8062-M			
D905	8-719-422-64	DIODE MA8062-M			
		< IC >			
IC901	8-759-443-68	IC LC75834JED			
		< JUMPER RESISTOR >			
JC901	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC902	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC951	1-216-296-00	CONDUCTOR, CHIP	(3216)		
JC952	1-216-296-00	CONDUCTOR, CHIP	(3216)		
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-801-588-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< SWITCH >			
LSW901	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (OFF)			
LSW902	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW903	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (MODE ◄II►)			
LSW904	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (SEEK +/AMS ►► ►►I)			
LSW905	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (–SEEK/ I◄◄ ◄◄ AMS)			
LSW906	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (–)			
LSW907	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (SEL)			
LSW908	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (+)			
LSW909	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (MUTE)			
LSW910	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (DSPL)			
LSW911	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (BTM)			
LSW912	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (LCL)			
LSW921	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (⏏)			
LSW922	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (INTRO 1)			
LSW923	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (REPEAT 2)			
LSW924	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (3)			
LSW925	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (BL.SKIP 6)			
LSW926	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (ATA 5)			
LSW927	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (4)			
LSW929	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (PRST +)			
LSW930	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (–PRST)			
		< PILOT LAMP >			
PL901	1-517-633-11	LAMP, PILOT (LCD BACK LIGHT)			
PL902	1-517-633-11	LAMP, PILOT (LCD BACK LIGHT)			
		< RESISTOR >			
R901	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R902	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R903	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R904	1-208-437-41	METAL GLAZE	1K	2%	1/10W
R905	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R906	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R907	1-208-445-41	METAL GLAZE	2.2K	2%	1/10W
R908	1-208-449-41	METAL GLAZE	3.3K	2%	1/10W
R909	1-208-453-41	METAL GLAZE	4.7K	2%	1/10W
R910	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R911	1-208-462-41	METAL GLAZE	10K	2%	1/10W
R921	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R922	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R923	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R924	1-208-437-41	METAL GLAZE	1K	2%	1/10W
R925	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R926	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R927	1-208-445-41	METAL GLAZE	2.2K	2%	1/10W
R928	1-208-449-41	METAL GLAZE	3.3K	2%	1/10W
R929	1-208-453-41	METAL GLAZE	4.7K	2%	1/10W
R951	1-216-190-00	METAL GLAZE	470	5%	1/8W

Ref. No.	Part No.	Description			Remark
R952	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R953	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R954	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R955	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R956	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R961	1-216-027-00	METAL GLAZE	120	5%	1/10W
R962	1-216-025-00	METAL GLAZE	100	5%	1/10W
R963	1-216-025-00	METAL GLAZE	100	5%	1/10W
R964	1-216-035-00	METAL CHIP	270	5%	1/10W
R965	1-216-035-00	METAL CHIP	270	5%	1/10W
R966	1-216-033-00	METAL CHIP	220	5%	1/10W
R981	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R982	1-208-449-41	METAL GLAZE	3.3K	2%	1/10W
R983	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R984	1-216-081-00	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
SW951	1-762-937-11	SWITCH, ROTARY (D-BASS)			
**********					
*	A-3309-735-A	MAIN BOARD, COMPLETE (EXR-105)			
*	A-3309-794-A	MAIN BOARD, COMPLETE (XR-3740)			
		**********			
*	3-009-809-01	BRACKET (IC)			
*	3-009-815-01	HEAT SINK (BUS NON)			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-126-157-11	ELECT	10uF	20%	16V
C4	1-126-157-11	ELECT	10uF	20%	16V
C5	1-126-157-11	ELECT	10uF	20%	16V
C6	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C10	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C11	1-126-160-11	ELECT	1uF	20%	50V
C12	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C13	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C14	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C16	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C17	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C18	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C19	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C22	1-124-584-00	ELECT	100uF	20%	10V
C23	1-124-234-00	ELECT	22uF	20%	16V
C25	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C26	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C27	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C101	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C102	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C104	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C105	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C106	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C107	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C108	1-126-163-11	ELECT	4.7uF	20%	50V
C109	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C122	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C123	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C124	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C151	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C152	1-124-257-00	ELECT	2.2uF	20%	50V
C161	1-126-160-11	ELECT	1uF	20%	50V
C162	1-126-160-11	ELECT	1uF	20%	50V
C163	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C164	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C165	1-126-157-11	ELECT	10uF	20%	16V
C166	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C167	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C168	1-126-157-11	ELECT	10uF	20%	16V
C169	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C170	1-163-157-00	CERAMIC CHIP	10PF	5%	50V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C183	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C191	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C202	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C204	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C205	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C206	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C207	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C208	1-126-163-11	ELECT	4.7uF	20%	50V
C209	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C251	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C252	1-124-257-00	ELECT	2.2uF	20%	50V
C261	1-126-160-11	ELECT	1uF	20%	50V
C262	1-126-160-11	ELECT	1uF	20%	50V
C263	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C264	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C265	1-126-157-11	ELECT	10uF	20%	16V
C266	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C267	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C268	1-126-157-11	ELECT	10uF	20%	16V
C269	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C270	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C283	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-124-584-00	ELECT	100uF	20%	10V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C306	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C331	1-124-584-00	ELECT	100uF	20%	10V
C332	1-124-234-00	ELECT	22uF	20%	16V
C353	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C354	1-126-157-11	ELECT	10uF	20%	16V
C355	1-126-157-11	ELECT	10uF	20%	16V
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

MAIN

Ref. No.	Part No.	Description				Remark
C358	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C359	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	
C501	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C502	1-163-234-11	CERAMIC CHIP	20PF	5%	50V	
C503	1-124-584-00	ELECT	100uF	20%	10V	
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C505	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C551	1-125-701-11	CAPACITOR	0.047F		5.5V	
C552	1-124-584-00	ELECT	100uF	20%	10V	
C553	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C554	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C571	1-126-163-11	ELECT	4.7uF	20%	50V	
C582	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C602	1-164-222-11	CERAMIC CHIP	0.22uF		25V	
C611	1-126-157-11	ELECT	10uF	20%	16V	
C612	1-126-157-11	ELECT	10uF	20%	16V	
C613	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C614	1-126-157-11	ELECT	10uF	20%	16V	
C615	1-126-157-11	ELECT	10uF	20%	16V	
C616	1-126-157-11	ELECT	10uF	20%	16V	
C617	1-126-157-11	ELECT	10uF	20%	16V	
C621	1-126-157-11	ELECT	10uF	20%	16V	
C622	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C623	1-124-589-11	ELECT	47uF	20%	16V	
C701	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C702	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C703	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C721	1-136-165-11	FILM	0.1uF		50V	
C722	1-136-165-11	FILM	0.1uF		50V	
C723	1-136-165-11	FILM	0.1uF		50V	
C724	1-136-165-11	FILM	0.1uF		50V	
C731	1-136-165-11	FILM	0.1uF		50V	
C732	1-136-165-11	FILM	0.1uF		50V	
C733	1-136-165-11	FILM	0.1uF		50V	
C734	1-136-165-11	FILM	0.1uF		50V	
C751	1-126-096-11	ELECT	10uF	20%	35V	
C752	1-107-682-11	CERAMIC CHIP	1uF	10%	16V	
C754	1-126-157-11	ELECT	10uF	20%	16V	
C755	1-126-096-11	ELECT	10uF	20%	35V	
C781	1-126-936-11	ELECT	3300uF	20%	16V	
C782	1-163-181-00	CERAMIC CHIP	100PF	5%	50V	
C783	1-163-181-00	CERAMIC CHIP	100PF	5%	50V	
C785	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C786	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C901	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C906	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C907	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C908	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C909	1-163-181-00	CERAMIC CHIP	100PF	5%	50V	
C910	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C912	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	
C913	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C914	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
		< CONNECTOR >				
CN301	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P				
* CN351	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P				
CN701	1-764-422-11	PLUG, CONNECTOR 12P				
CN781	1-774-701-11	PIN, CONNECTOR 16P				

Ref. No.	Part No.	Description	Remark
		< SPARK GAP CAPACITOR >	
CP1	1-519-504-11	GAP, DISCHARGE	
		< DIODE >	
D1	8-719-991-65	DIODE SB02W03C	
D21	8-719-423-10	DIODE MA8100-M-TX	
D91	8-719-420-90	DIODE MA8051-M	
D301	8-719-404-49	DIODE MA111	
D351	8-719-035-91	DIODE MA4091-H(TA)	
D352	8-719-404-49	DIODE MA111	
D501	8-719-400-20	DIODE MA152WA	
D502	8-719-911-19	DIODE 1SS119 (XR-3740)	
D551	8-719-400-20	DIODE MA152WA	
D552	8-719-404-49	DIODE MA111	
D553	8-719-404-49	DIODE MA111	
D571	8-719-034-94	DIODE MA4180-M(QZ)	
D572	8-719-110-03	DIODE RD7.5ESB2	
D582	8-719-057-80	DIODE MA8160-M-TX	
D583	8-719-422-76	DIODE MA8075-M	
D601	8-719-423-32	DIODE MA8120-M	
D621	8-719-035-54	DIODE MA4039-M(TA)	
D622	8-719-911-19	DIODE 1SS119	
D701	8-719-035-74	DIODE MA4062-M(TA)	
D702	8-719-035-74	DIODE MA4062-M(TA)	
D703	8-719-035-74	DIODE MA4062-M(TA)	
D704	8-719-035-74	DIODE MA4062-M(TA)	
D705	8-719-035-74	DIODE MA4062-M(TA)	
D706	8-719-035-74	DIODE MA4062-M(TA)	
D707	8-719-034-94	DIODE MA4180-M(QZ)	
D708	8-719-035-74	DIODE MA4062-M(TA)	
D709	8-719-035-74	DIODE MA4062-M(TA)	
D781	8-719-049-38	DIODE 1N5404TU	
D782	8-719-970-02	DIODE 1SR139-400	
D783	8-719-970-02	DIODE 1SR139-400	
D784	8-719-422-64	DIODE MA8062-M	
D785	8-719-035-74	DIODE MA4062-M(TA) (XR-3740)	
		< IC >	
IC301	8-752-079-78	IC CXA2509AQ-T4	
IC331	8-759-443-67	IC LC75373ED	
IC351	8-759-395-97	IC MM1322XFBE	
IC501	8-759-462-38	IC uPD17708GC-545-3B9	
IC551	8-759-363-81	IC XC61AN4002PR	
IC611	8-759-347-49	IC BA3918-V2	
IC751	8-759-369-41	IC HA13155	
		< JACK >	
J1	1-764-808-14	JACK (FM/AM ANTENNA)	
J331	1-774-698-11	JACK, PIN 2P (LINE OUT)	
J561	1-566-822-41	JACK (REMOTE IN)	
		< JUMPER RESISTOR >	
JC1	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC2	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC3	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC4	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC151	1-216-296-00	CONDUCTOR, CHIP (3216)	

Ref. No.	Part No.	Description		Remark
JC161	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC162	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC163	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC251	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC301	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC302	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC303	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC304	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC331	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC351	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC501	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC502	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC503	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC504	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC506	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC507	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC508	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC509	1-216-295-00	CONDUCTOR, CHIP	(2012) (XR-3740)	
JC561	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC581	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC601	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC611	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC751	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC752	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JC781	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC901	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC902	1-216-295-00	CONDUCTOR, CHIP	(2012)	
JC904	1-216-295-00	CONDUCTOR, CHIP	(2012)	
		< COIL >		
L501	1-410-509-11	INDUCTOR	10uH	
L781	1-411-669-12	COIL, CHOKE	0.4uH	
		< TRANSISTOR >		
Q21	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q22	8-729-021-94	TRANSISTOR	2SK1657-T1B	
Q171	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q351	8-729-015-11	TRANSISTOR	2SD1802FAST-TL	
Q352	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q353	8-729-900-53	TRANSISTOR	DTC114EK	
Q354	8-729-106-60	TRANSISTOR	2SB1115A	
Q355	8-729-900-53	TRANSISTOR	DTC114EK	
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q571	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q581	8-729-900-53	TRANSISTOR	DTC114EK	
Q582	8-729-027-59	TRANSISTOR	DTC144EKA-T146	
Q583	8-729-027-38	TRANSISTOR	DTA144EKA-T146	
Q601	8-729-423-99	TRANSISTOR	2SD2137-OP	
Q602	8-729-900-53	TRANSISTOR	DTC114EK	
Q603	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q621	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q622	8-729-120-28	TRANSISTOR	2SC1623-L5L6	

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R1	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R5	1-216-081-00	METAL CHIP	22K	5%	1/10W
R7	1-216-109-00	METAL CHIP	330K	5%	1/10W
R8	1-247-899-11	CARBON	680K	5%	1/4W
R9	1-216-180-00	METAL GLAZE	180	5%	1/8W
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W
R11	1-249-413-11	CARBON	470	5%	1/4W
R12	1-216-073-00	METAL CHIP	10K	5%	1/10W
R13	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R14	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R21	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R22	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R23	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R24	1-249-421-11	CARBON	2.2K	5%	1/4W
R91	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R103	1-216-041-00	METAL CHIP	470	5%	1/10W
R104	1-216-109-00	METAL CHIP	330K	5%	1/10W
R105	1-216-077-00	METAL CHIP	15K	5%	1/10W
R106	1-216-079-00	METAL CHIP	18K	5%	1/10W
R107	1-249-429-11	CARBON	10K	5%	1/4W
R108	1-216-081-00	METAL CHIP	22K	5%	1/10W
R121	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R122	1-216-081-00	METAL CHIP	22K	5%	1/10W
R151	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R152	1-216-077-00	METAL CHIP	15K	5%	1/10W
R161	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R171	1-216-033-00	METAL CHIP	220	5%	1/10W
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-081-00	METAL CHIP	22K	5%	1/10W
R174	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R175	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R181	1-216-033-00	METAL CHIP	220	5%	1/10W
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W
R183	1-216-081-00	METAL CHIP	22K	5%	1/10W
R184	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R185	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R186	1-216-182-00	METAL GLAZE	220	5%	1/8W
R191	1-216-073-00	METAL CHIP	10K	5%	1/10W
R192	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R203	1-216-041-00	METAL CHIP	470	5%	1/10W
R204	1-216-109-00	METAL CHIP	330K	5%	1/10W
R205	1-216-077-00	METAL CHIP	15K	5%	1/10W
R206	1-216-079-00	METAL CHIP	18K	5%	1/10W
R207	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R208	1-216-081-00	METAL CHIP	22K	5%	1/10W
R251	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R252	1-216-077-00	METAL CHIP	15K	5%	1/10W
R261	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R271	1-216-033-00	METAL CHIP	220	5%	1/10W
R272	1-216-073-00	METAL CHIP	10K	5%	1/10W
R273	1-216-081-00	METAL CHIP	22K	5%	1/10W
R274	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R275	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-073-00	METAL CHIP	10K	5%	1/10W
R283	1-216-081-00	METAL CHIP	22K	5%	1/10W

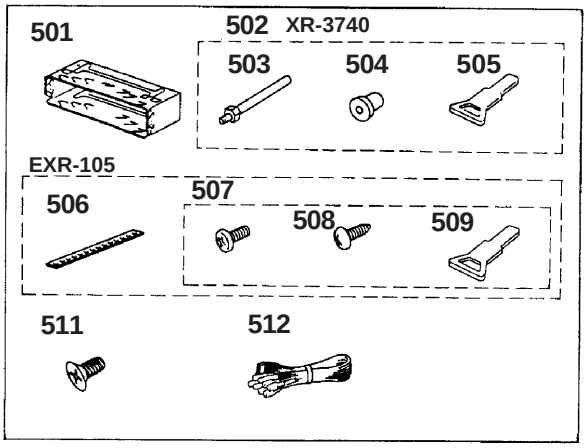
MAIN

Ref. No.	Part No.	Description			Remark
R284	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R285	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R286	1-216-033-00	METAL CHIP	220	5%	1/10W
R301	1-216-079-00	METAL CHIP	18K	5%	1/10W
R302	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R303	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R304	1-216-077-00	METAL CHIP	15K	5%	1/10W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-105-00	METAL CHIP	220K	5%	1/10W
R331	1-249-393-11	CARBON	10	5%	1/4W
R351	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R352	1-249-385-11	CARBON	2.2	5%	1/6W
R353	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R501	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R502	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R503	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R504	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R505	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R506	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R507	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R508	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R509	1-216-073-00	METAL CHIP	10K	5%	1/10W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (XR-3740)
R513	1-208-826-11	METAL GLAZE	68K	2%	1/10W (EXR-105)
R514	1-208-526-41	METAL GLAZE	47K	2%	1/10W (XR-3740)
R514	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (EXR-105)
R516	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R517	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R518	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R519	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R522	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R523	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R524	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R525	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R526	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R527	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R528	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R530	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R535	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R536	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R537	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R538	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R539	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R540	1-249-421-11	CARBON	2.2K	5%	1/4W
R541	1-249-421-11	CARBON	2.2K	5%	1/4W
R542	1-249-421-11	CARBON	2.2K	5%	1/4W
R543	1-249-421-11	CARBON	2.2K	5%	1/4W
R544	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R545	1-249-429-11	CARBON	10K	5%	1/4W
R546	1-249-413-11	CARBON	470	5%	1/4W
R551	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R552	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R561	1-208-806-11	METAL GLAZE	10K	0.5%	1/10W
R562	1-208-806-11	METAL GLAZE	10K	0.5%	1/10W
R563	1-216-025-00	METAL GLAZE	100	5%	1/10W
R564	1-216-025-00	METAL GLAZE	100	5%	1/10W
R571	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R572	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R573	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R574	1-249-421-11	CARBON	2.2K	5%	1/4W
R575	1-216-073-00	METAL CHIP	10K	5%	1/10W
R585	1-216-113-00	METAL CHIP	470K	5%	1/10W
R586	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-249-393-11	CARBON	10	5%	1/4W
R602	1-249-395-11	CARBON	15	5%	1/4W
R603	1-216-186-00	METAL GLAZE	330	5%	1/8W
R621	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R701	1-216-025-00	METAL GLAZE	100	5%	1/10W
R702	1-216-025-00	METAL GLAZE	100	5%	1/10W
R703	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R704	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R707	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R708	1-208-806-11	METAL GLAZE	10K	0.5%	1/10W
R709	1-208-806-11	METAL GLAZE	10K	0.5%	1/10W
R710	1-216-025-00	METAL GLAZE	100	5%	1/10W
R721	1-216-134-00	METAL CHIP	2.2		1/8W
R722	1-216-134-00	METAL CHIP	2.2		1/8W
R723	1-216-134-00	METAL CHIP	2.2		1/8W
R724	1-216-134-00	METAL CHIP	2.2		1/8W
R731	1-216-134-00	METAL CHIP	2.2		1/8W
R732	1-216-134-00	METAL CHIP	2.2		1/8W
R733	1-216-134-00	METAL CHIP	2.2		1/8W
R734	1-216-134-00	METAL CHIP	2.2		1/8W
R751	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R752	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R781	1-216-049-00	METAL GLAZE	1K	5%	1/10W
		< SWITCH >			
S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
S551	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER UNIT >			
TU1	A-3282-034-A	TUNER UNIT TUX-010 (E)			
		< VIBRATOR >			
X501	1-567-713-11	VIBRATOR, CRYSTAL (4.5MHz)			

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
9	1-776-207-11	CORD (WITH CONNECTOR) (POWER)	(XR-3740)
9	1-776-207-31	CORD (WITH CONNECTOR) (POWER)	(EXR-105)
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-621-772-10	SCREW +B 2X4	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#3	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#4	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#5	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#6	7-624-104-04	STOP RING 2.0, TYPE-E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
**********			

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-859-568-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE)	(XR-3740)
	3-859-568-21	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE)	(XR-3740)
	3-859-569-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, CHINESE)	(XR-3740)
	3-859-569-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, CHINESE)	(XR-3740)
	3-859-570-11	MANUAL, INSTRUCTION (ENGLISH)	(EXR-105)
	3-859-570-21	MANUAL, INSTRUCTION (FRENCH)	(EXR-105: Canadian)
	3-859-571-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(EXR-105)
	X-3373-371-1	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	3-916-161-31	FRAME ASSY	
502	X-3370-077-1	SCREW ASSY (AE. KEY), FITTING (XR-3740)	
503	3-386-828-01	SCREW, FITTING (XR-3740)	
504	3-349-410-01	BUSHING (XR-3740)	
505	3-388-078-01	KEY (XR-3740)	
506	3-924-961-01	SUPPORT (ND), FITTING (EXR-105)	
507	X-3370-076-1	SCREW ASSY (KEY), FITTING (EXR-105)	
508	7-682-560-04	SCREW +P 4X6 (EXR-105)	
509	3-926-426-01	KEY (EXR-105)	
511	3-934-325-01	SCREW, +K (5X8) TAPPING	
512	1-776-207-11	CORD (WITH CONNECTOR) (POWER)	(XR-3740)
512	1-776-207-31	CORD (WITH CONNECTOR) (POWER)	(EXR-105)



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EXR-105/XR-3740

SONY

SERVICE MANUAL

US Model
Canadian Model
EXR-105
E Model
XR-3740

SUPPLEMENT-1

File this supplement with the service manual.

Subject:
1. Mechanism Deck Modification (MG-25F-136)
2. Main Board Modification

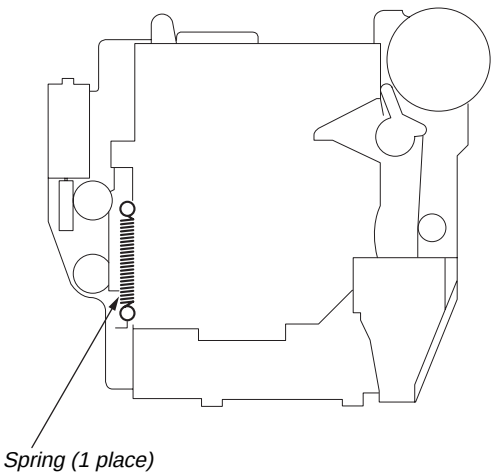
(SPM-98041)

1. MECHANISM DECK MODIFICATION (MG-25F-136)

The mechanism deck was changed from MG-25A-136 to MG-25F-136. This supplement contains only the assembly of mechanism deck and exploded view.

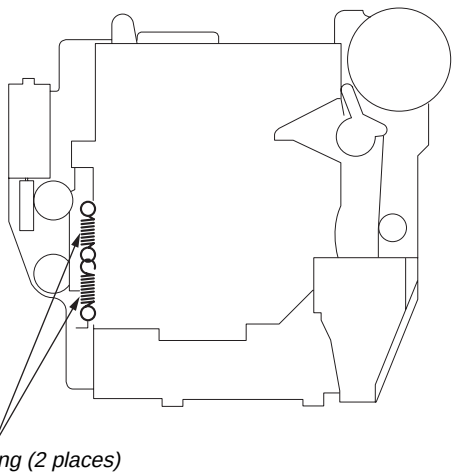
- **New/Former Discrimination**

Former type : MG-25A-136



Spring (1 place)

New type : MG-25F-136

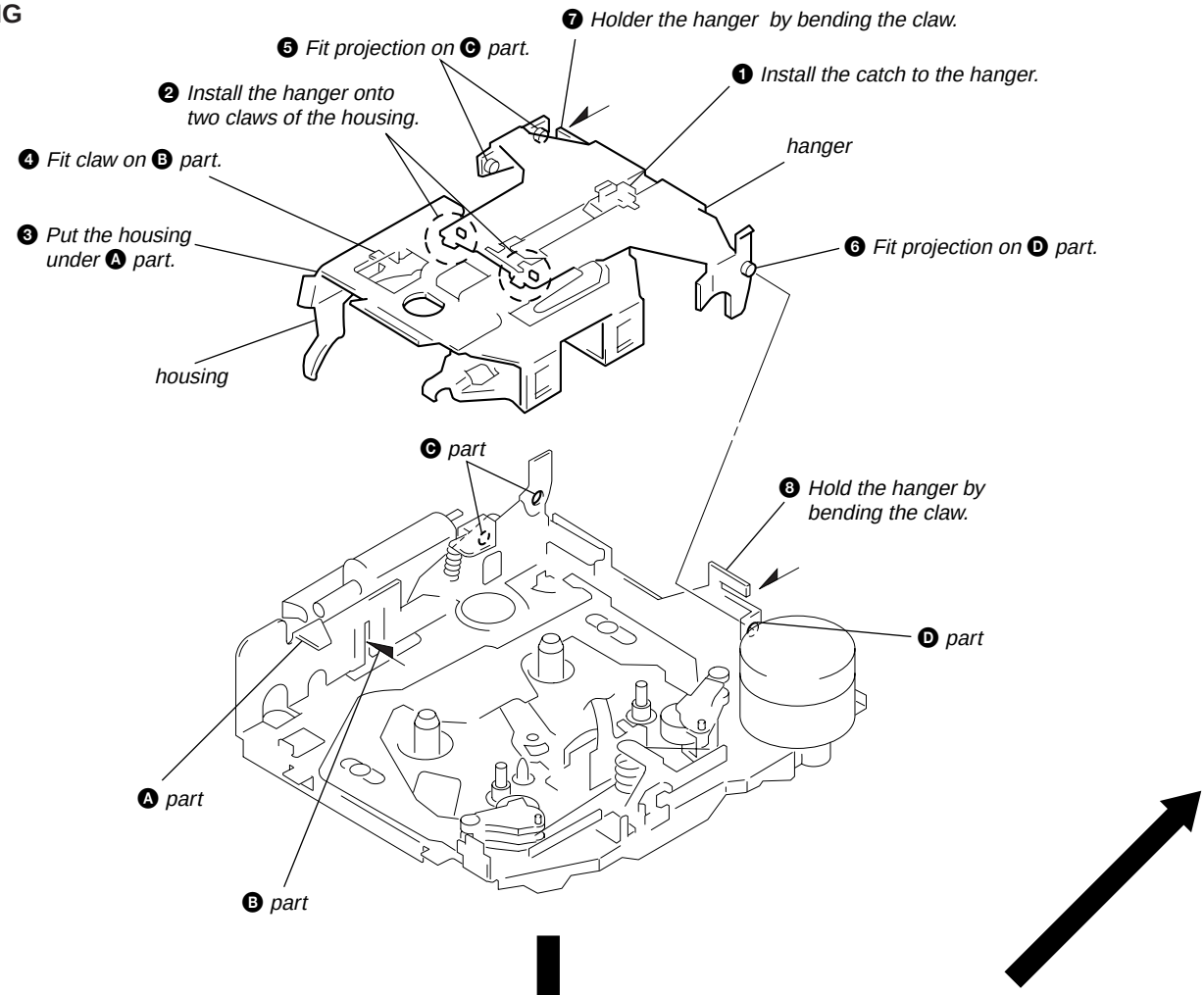


Spring (2 places)

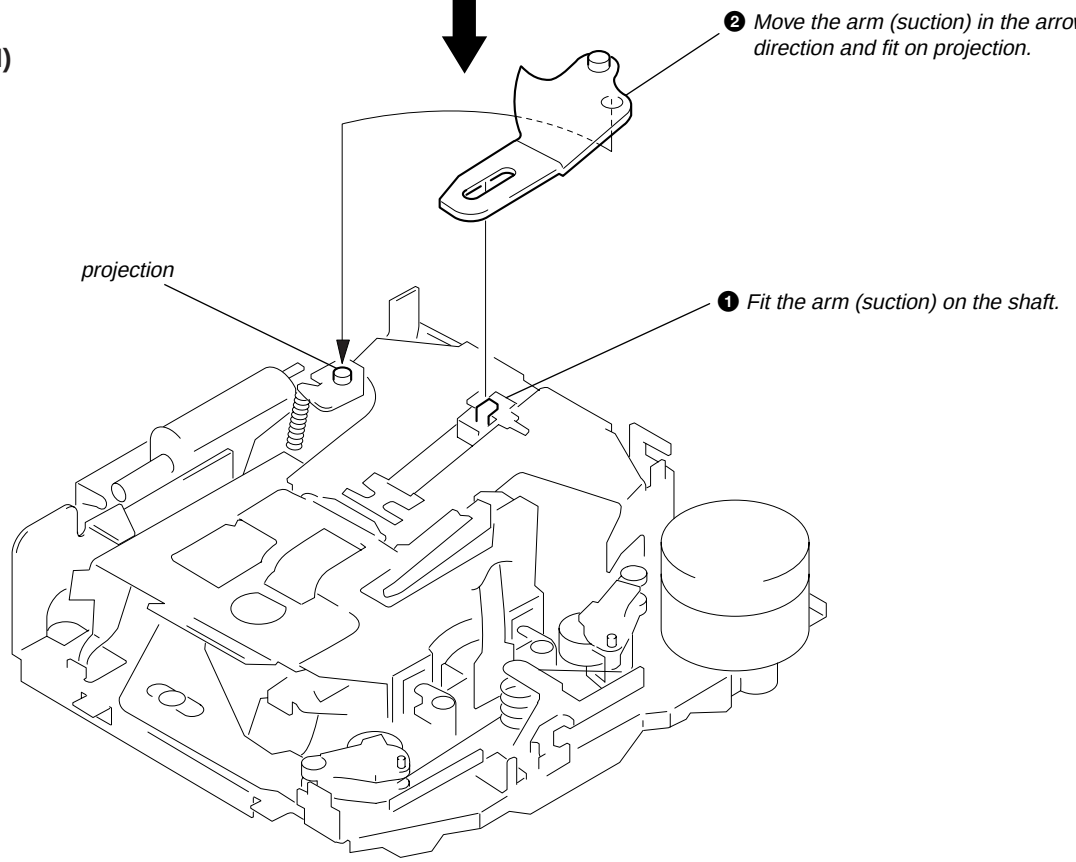
1-1. ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

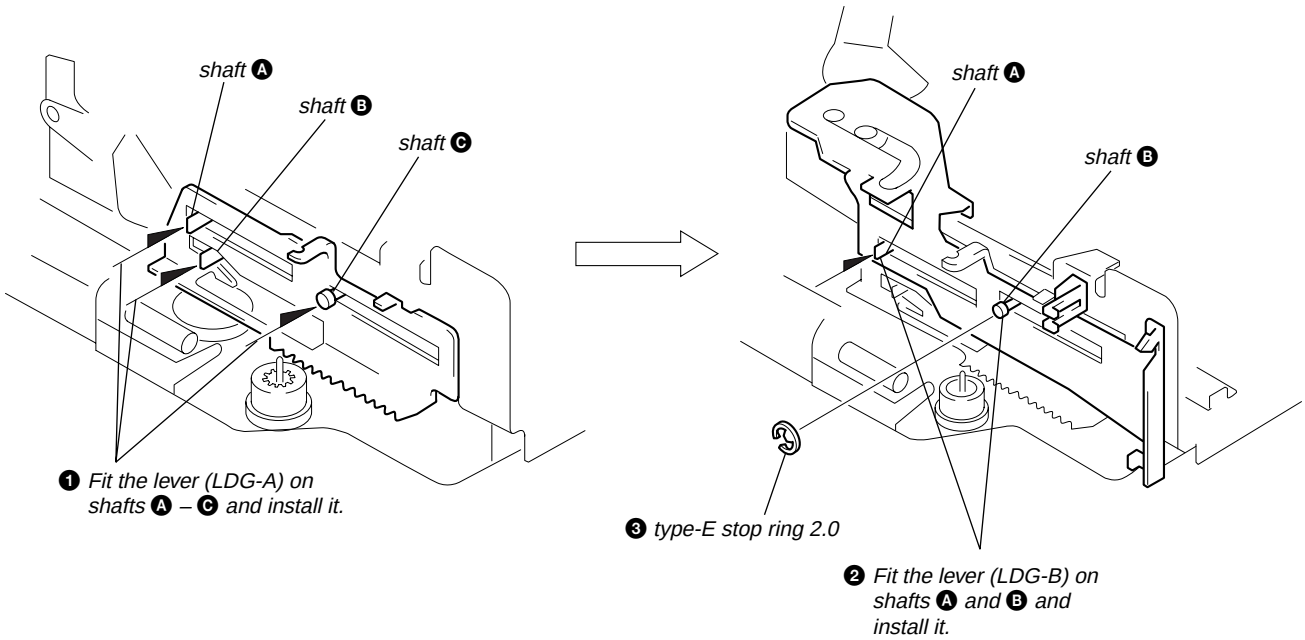
HOUSING


❼ Holder the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

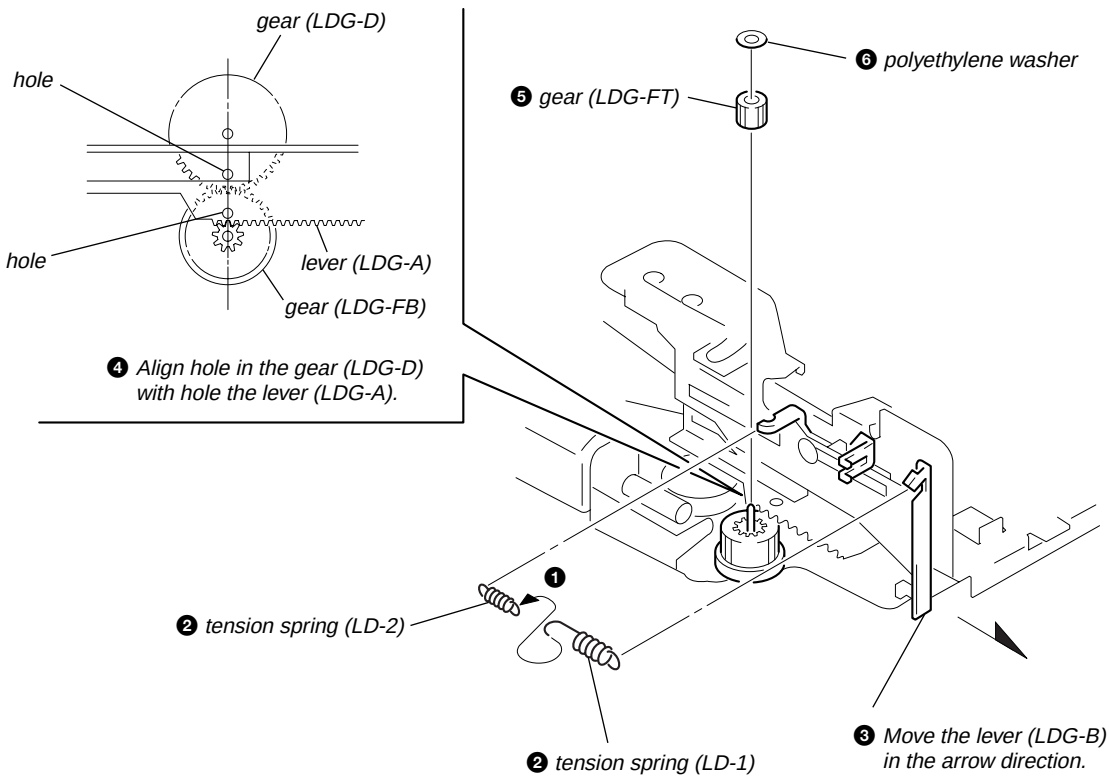
ARM (SUCTION)



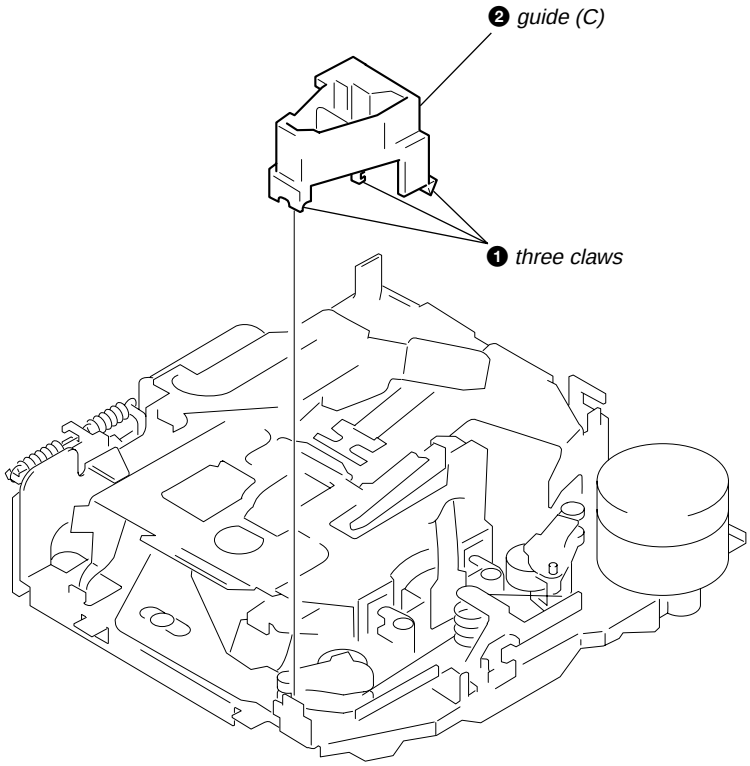
LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

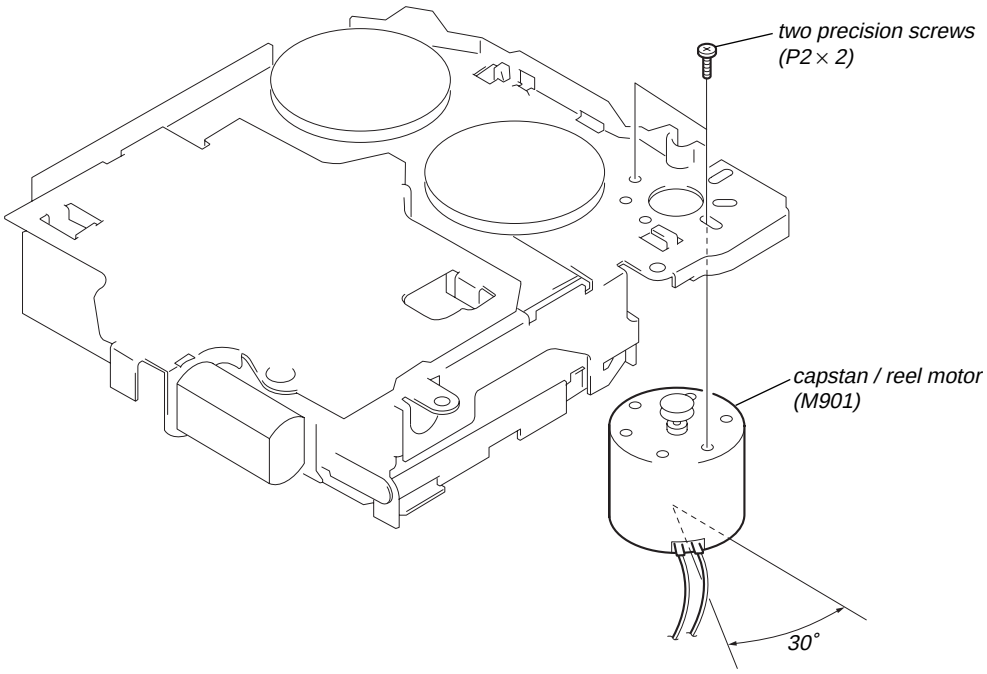
GEAR (LDG-FT)



GUIDE (C)



MOUNTING POSITION OF CAPSTAN / REEL MOTOR (M901)

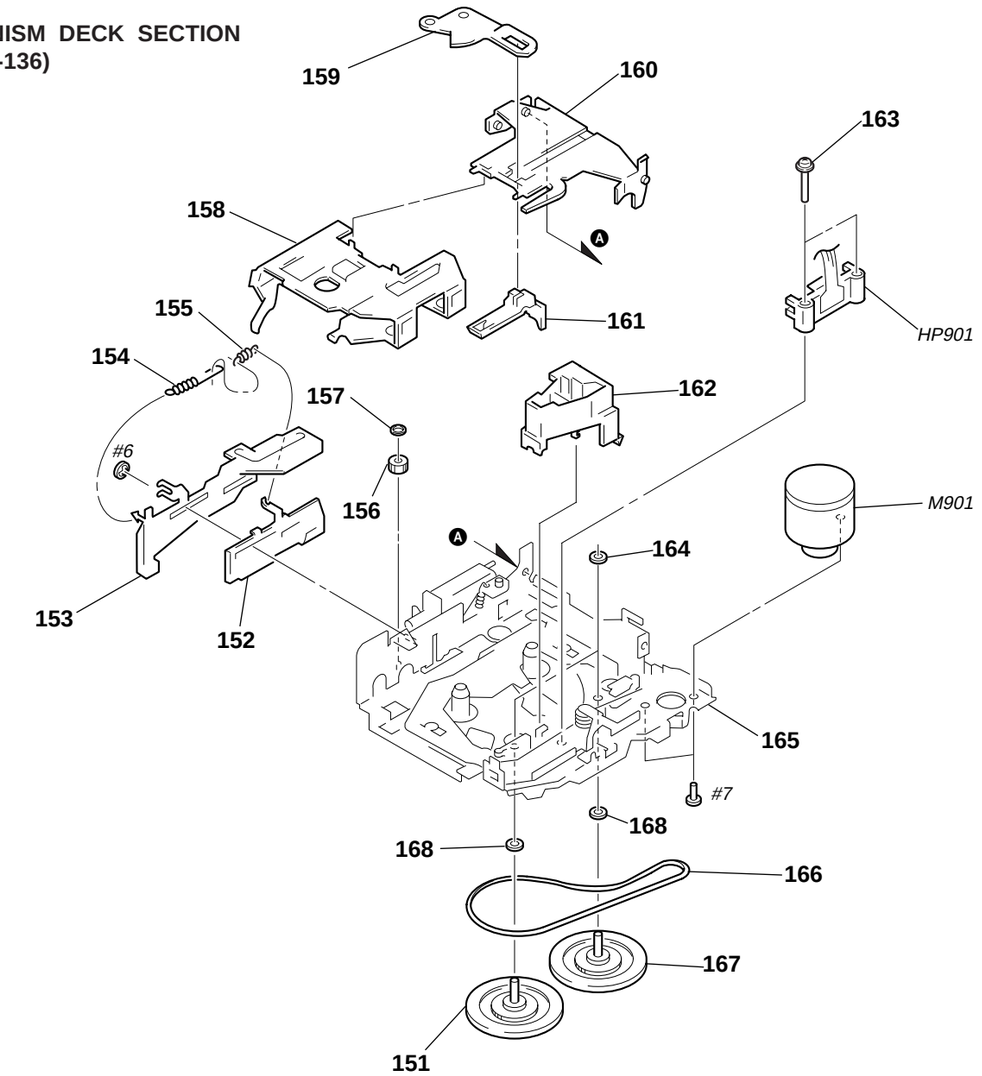


1-2. EXPLODED VIEW

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

MECHANISM DECK SECTION (MG-25F-136)

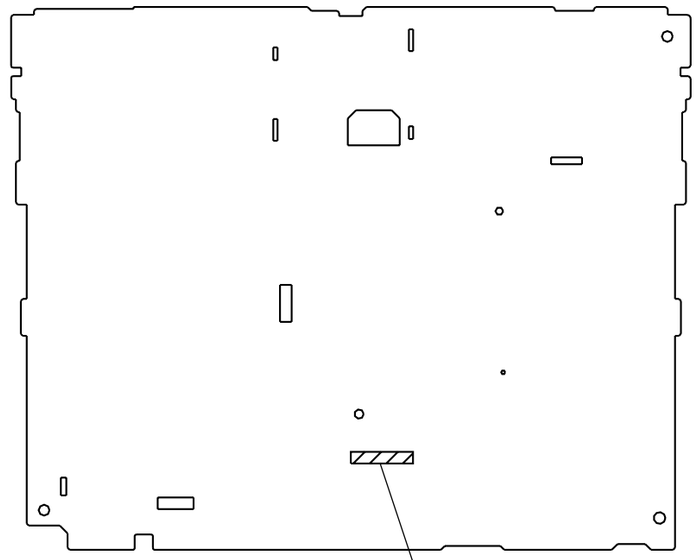


Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3301-267-A	CHASSIS ASSY (F)	
166	3-017-302-01	BELT (25)	
167	3-936-853-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
#6	7-624-104-04	STOP RING 2.0 TYPE-E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE3	

2. MAIN BOARD MODIFICATION

- **New/Former Discrimination**

[MAIN BOARD] (COMPONENT SIDE)



Former type: 1-664-751-11
New type : 1-664-751-12

2-1. NOTE FOR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing.

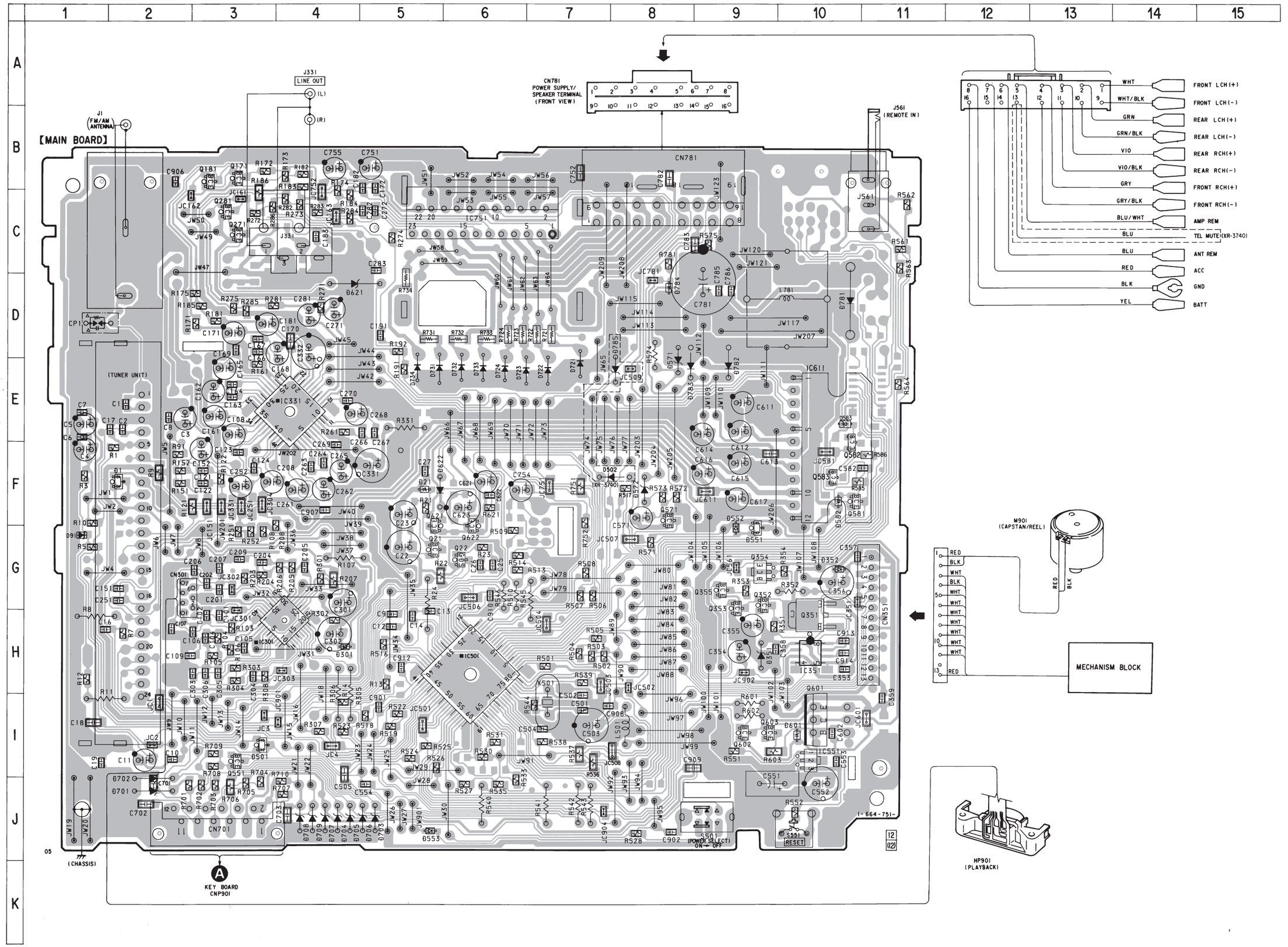
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from battery and accessory terminals.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM (MW)
  ⟨⟨ ⟩⟩ : TAPE PLAYBACK
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM (MW)
  ⇨ : TAPE PLAYBACK
- Abbreviation
  105 : EXR-105
  3740 : XR-3740

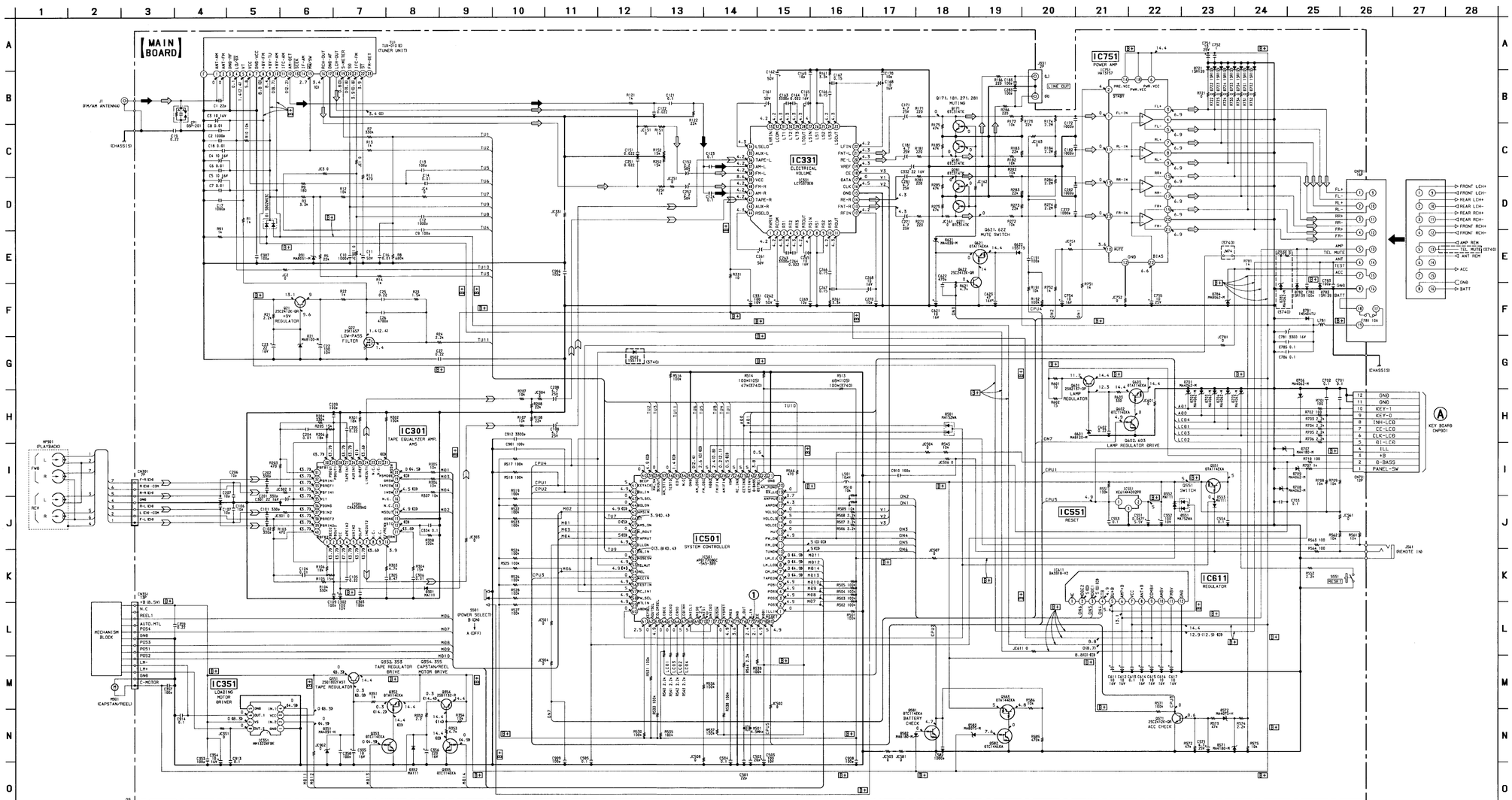
2-2. PRINTED WIRING BOARD – MAIN Section –

• **Semiconductor Location**

Ref. No.	Location
D1	F-2
D21	F-5
D91	G-1
D301	H-4
D351	H-9
D352	G-10
D501	I-3
D502	F-7
D551	G-9
D552	G-9
D553	J-5
D571	E-8
D572	F-8
D582	F-10
D583	E-10
D601	I-10
D621	D-4
D622	F-5
D701	J-2
D702	J-2
D703	J-5
D704	J-4
D705	J-4
D706	J-5
D707	J-4
D708	J-4
D709	J-4
D721	D-7
D722	E-7
D723	E-7
D724	E-6
D731	E-5
D732	E-6
D733	E-6
D734	E-5
D781	D-10
D782	E-9
D783	E-8
D784	D-8
D785	E-8
IC301	H-3
IC331	E-4
IC351	H-10
IC501	H-6
IC551	I-10
IC611	E-10
IC751	C-6
Q21	G-5
Q22	G-6
Q171	B-3
Q181	B-3
Q271	C-3
Q281	C-3
Q351	H-10
Q352	G-9
Q353	G-9
Q354	G-9
Q355	G-9
Q551	I-3
Q571	F-8
Q581	F-10
Q582	F-10
Q583	F-10
Q601	I-10
Q602	I-9
Q603	I-9
Q621	F-5
Q622	G-6



2-3. SCHEMATIC DIAGRAM – MAIN Section –



2-4. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3309-735-A	MAIN BOARD, COMPLETE (EXR-105)			
*	A-3309-794-A	MAIN BOARD, COMPLETE (XR-3740)			
		**********			
*	3-009-809-01	BRACKET (IC)			
*	3-009-815-01	HEAT SINK (BUS NON)			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-124-233-11	ELECT	10uF	20%	16V
C4	1-124-233-11	ELECT	10uF	20%	16V
C5	1-124-233-11	ELECT	10uF	20%	16V
C6	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C7	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C8	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C9	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C10	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C11	1-126-160-11	ELECT	1uF	20%	50V
C12	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C13	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C14	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C16	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C17	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C18	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C19	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C22	1-124-584-00	ELECT	100uF	20%	10V
C23	1-124-234-00	ELECT	22uF	20%	16V
C25	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C26	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C27	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C101	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C102	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C104	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C105	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C106	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C107	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C108	1-126-163-11	ELECT	4.7uF	20%	50V
C109	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C122	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C123	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C124	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C151	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C152	1-124-257-00	ELECT	2.2uF	20%	50V
C161	1-126-160-11	ELECT	1uF	20%	50V
C162	1-126-160-11	ELECT	1uF	20%	50V
C163	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C164	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C165	1-124-233-11	ELECT	10uF	20%	16V
C166	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C167	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C168	1-124-233-11	ELECT	10uF	20%	16V
C169	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C170	1-163-287-11	CERAMIC CHIP	10PF	5%	50V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C183	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C191	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C202	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C204	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C205	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C206	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C207	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C208	1-126-163-11	ELECT	4.7uF	20%	50V
C209	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C251	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C252	1-124-257-00	ELECT	2.2uF	20%	50V
C261	1-126-160-11	ELECT	1uF	20%	50V
C262	1-126-160-11	ELECT	1uF	20%	50V
C263	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C264	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C265	1-124-233-11	ELECT	10uF	20%	16V
C266	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C267	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C268	1-124-233-11	ELECT	10uF	20%	16V
C269	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C270	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C283	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-124-584-00	ELECT	100uF	20%	10V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V

Ref. No.	Part No.	Description			Remark
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C331	1-124-584-00	ELECT	100uF	20%	10V
C332	1-124-234-00	ELECT	22uF	20%	16V
C353	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C354	1-124-233-11	ELECT	10uF	20%	16V
C355	1-124-233-11	ELECT	10uF	20%	16V
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C358	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C359	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C501	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C502	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C503	1-124-584-00	ELECT	100uF	20%	10V
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C505	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C551	1-125-701-11	DOUBLE LAYER	0.047F	0	5.5V
C552	1-124-584-00	ELECT	100uF	20%	10V
C553	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C554	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C571	1-126-163-11	ELECT	4.7uF	20%	50V
C582	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C602	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C611	1-124-233-11	ELECT	10uF	20%	16V
C612	1-124-233-11	ELECT	10uF	20%	16V
C613	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C614	1-124-233-11	ELECT	10uF	20%	16V
C615	1-124-233-11	ELECT	10uF	20%	16V
C616	1-124-233-11	ELECT	10uF	20%	16V
C617	1-124-233-11	ELECT	10uF	20%	16V
C621	1-124-233-11	ELECT	10uF	20%	16V
C622	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C623	1-124-589-11	ELECT	47uF	20%	16V
C701	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C702	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C703	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C751	1-126-096-11	ELECT	10uF	20%	35V
C752	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C754	1-124-233-11	ELECT	10uF	20%	16V
C755	1-126-096-11	ELECT	10uF	20%	35V
C781	1-126-936-11	ELECT	3300uF	20%	16V
C782	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C783	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C785	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C786	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C901	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C906	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C907	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C908	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C909	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C910	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C912	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C913	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C914	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

< CONNECTOR >

CN301	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P	
* CN351	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	
CN701	1-764-422-11	PLUG, CONNECTOR 12P	
CN781	1-774-701-11	PIN, CONNECTOR 16P	

< CONPOSITION CIRCUIT BLOCK >

CP1	1-519-504-11	GAP, DISCHARGE	

< DIODE >

D1	8-719-991-65	DIODE	SB02W03C
D21	8-719-423-10	DIODE	MA8100-M-TX
D91	8-719-420-90	DIODE	MA8051-M
D301	8-719-404-49	DIODE	MA111
D351	8-719-035-91	DIODE	MA4091-H (TA)
D352	8-719-404-49	DIODE	MA111
D501	8-719-400-20	DIODE	MA152WA
D502	8-719-911-19	DIODE	1SS119 (XR-3740)
D551	8-719-400-20	DIODE	MA152WA
D552	8-719-404-49	DIODE	MA111
D553	8-719-404-49	DIODE	MA111
D571	8-719-034-94	DIODE	MA4180-M (QZ)
D572	8-719-110-03	DIODE	RD7.5ESB2
D582	8-719-057-80	DIODE	MA8160-M-TX
D583	8-719-422-76	DIODE	MA8075-M
D601	8-719-423-32	DIODE	MA8120-M
D621	8-719-035-54	DIODE	MA4039-M (TA)
D622	8-719-911-19	DIODE	1SS119
D701	8-719-035-74	DIODE	MA4062-M (TA)
D702	8-719-035-74	DIODE	MA4062-M (TA)
D703	8-719-035-74	DIODE	MA4062-M (TA)
D704	8-719-035-74	DIODE	MA4062-M (TA)
D705	8-719-035-74	DIODE	MA4062-M (TA)
D706	8-719-035-74	DIODE	MA4062-M (TA)
D707	8-719-034-94	DIODE	MA4180-M (QZ)
D708	8-719-035-74	DIODE	MA4062-M (TA)
D709	8-719-035-74	DIODE	MA4062-M (TA)
D721	8-719-970-02	DIODE	1SR139-400
D722	8-719-970-02	DIODE	1SR139-400
D723	8-719-970-02	DIODE	1SR139-400
D724	8-719-970-02	DIODE	1SR139-400
D731	8-719-970-02	DIODE	1SR139-400
D732	8-719-970-02	DIODE	1SR139-400
D733	8-719-970-02	DIODE	1SR139-400
D734	8-719-970-02	DIODE	1SR139-400
D781	8-719-049-38	DIODE	1N5404TU
D782	8-719-970-02	DIODE	1SR139-400
D783	8-719-970-02	DIODE	1SR139-400
D784	8-719-422-64	DIODE	MA8062-M
D785	8-719-035-74	DIODE	MA4062-M (TA)(XR-3740)

< IC >

IC301	8-752-079-78	IC	CXA2509AQ-T4
IC331	8-759-443-67	IC	LC75373ED
IC351	8-759-395-97	IC	MM1322XFBE
IC501	8-759-462-38	IC	uPD17708GC-545-3B9
IC551	8-759-363-81	IC	XC61AN4002PR
IC611	8-759-347-49	IC	BA3918-V2
IC751	8-759-490-48	IC	HA13157

< JACK >

J1	1-764-808-21	JACK (ANT)(FM/AM ANTENNA)
J331	1-774-698-11	JACK, PIN 2P (LINE OUT)
J561	1-566-822-41	JACK (REMOTE IN)

MAIN

Ref. No.	Part No.	Description		Remark
		< SHORT >		
JC1	1-216-296-00	SHORT	0	
JC2	1-216-295-00	SHORT	0	
JC3	1-216-295-00	SHORT	0	
JC4	1-216-296-00	SHORT	0	
JC151	1-216-296-00	SHORT	0	
JC161	1-216-295-00	SHORT	0	
JC162	1-216-295-00	SHORT	0	
JC163	1-216-296-00	SHORT	0	
JC251	1-216-296-00	SHORT	0	
JC301	1-216-295-00	SHORT	0	
JC302	1-216-295-00	SHORT	0	
JC303	1-216-295-00	SHORT	0	
JC304	1-216-296-00	SHORT	0	
JC331	1-216-296-00	SHORT	0	
JC351	1-216-295-00	SHORT	0	
JC501	1-216-296-00	SHORT	0	
JC502	1-216-295-00	SHORT	0	
JC503	1-216-296-00	SHORT	0	
JC504	1-216-296-00	SHORT	0	
JC506	1-216-296-00	SHORT	0	
JC507	1-216-296-00	SHORT	0	
JC508	1-216-296-00	SHORT	0	
JC509	1-216-295-00	SHORT	0 (XR-3740)	
JC561	1-216-295-00	SHORT	0	
JC581	1-216-296-00	SHORT	0	
JC601	1-216-296-00	SHORT	0	
JC611	1-216-296-00	SHORT	0	
JC751	1-216-296-00	SHORT	0	
JC752	1-216-296-00	SHORT	0	
JC781	1-216-295-00	SHORT	0	
JC901	1-216-295-00	SHORT	0	
JC902	1-216-295-00	SHORT	0	
JC904	1-216-295-00	SHORT	0	
		< COIL >		
L501	1-410-509-11	INDUCTOR	10uH	
L781	1-411-669-12	INDUCTOR		
		< TRANSISTOR >		
Q21	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q22	8-729-021-94	TRANSISTOR	2SK1657-T1B	
Q171	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q351	8-729-015-11	TRANSISTOR	2SD1802FAST-TL	
Q352	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q353	8-729-900-53	TRANSISTOR	DTC114EK	
Q354	8-729-106-60	TRANSISTOR	2SB1115A	
Q355	8-729-900-53	TRANSISTOR	DTC114EK	
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q571	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q581	8-729-900-53	TRANSISTOR	DTC114EK	
Q582	1-801-806-11	TRANSISTOR	DTC144EKA-T146	
Q583	8-729-027-38	TRANSISTOR	DTA144EKA-T146	
Q601	8-729-423-99	TRANSISTOR	2SD2137-OP	
Q602	8-729-900-53	TRANSISTOR	DTC114EK	
Q603	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q621	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q622	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
		< RESISTOR >		
R1	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R3	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	
R5	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R7	1-216-109-00	METAL CHIP	330K 5% 1/10W	
R8	1-247-899-11	CARBON	680K 5% 1/4W	
R9	1-216-180-00	RES, CHIP	180 5% 1/8W	
R10	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R11	1-249-413-11	CARBON	470 5% 1/4W	
R12	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R13	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R14	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R21	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R22	1-216-198-00	RES, CHIP	1K 5% 1/8W	
R23	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	
R24	1-249-421-11	CARBON	2.2K 5% 1/4W	
R91	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R103	1-216-041-00	METAL CHIP	470 5% 1/10W	
R104	1-216-109-00	METAL CHIP	330K 5% 1/10W	
R105	1-216-077-00	METAL CHIP	15K 5% 1/10W	
R106	1-216-079-00	METAL CHIP	18K 5% 1/10W	
R107	1-249-429-11	CARBON	10K 5% 1/4W	
R108	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R121	1-216-198-00	RES, CHIP	1K 5% 1/8W	
R122	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R151	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R152	1-216-077-00	METAL CHIP	15K 5% 1/10W	
R161	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	
R171	1-216-033-00	METAL CHIP	220 5% 1/10W	
R172	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R173	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R174	1-216-129-00	METAL CHIP	2.2M 5% 1/10W	
R175	1-216-089-00	RES, CHIP	47K 5% 1/10W	
R181	1-216-033-00	METAL CHIP	220 5% 1/10W	
R182	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R183	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R184	1-216-129-00	METAL CHIP	2.2M 5% 1/10W	
R185	1-216-089-00	RES, CHIP	47K 5% 1/10W	
R186	1-216-182-00	RES, CHIP	220 5% 1/8W	
R191	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R192	1-216-097-00	RES, CHIP	100K 5% 1/10W	
R203	1-216-041-00	METAL CHIP	470 5% 1/10W	
R204	1-216-109-00	METAL CHIP	330K 5% 1/10W	
R205	1-216-077-00	METAL CHIP	15K 5% 1/10W	
R206	1-216-079-00	METAL CHIP	18K 5% 1/10W	
R207	1-216-222-00	RES, CHIP	10K 5% 1/8W	
R208	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R251	1-216-049-11	RES, CHIP	1K 5% 1/10W	
R252	1-216-077-00	METAL CHIP	15K 5% 1/10W	
R261	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	
R271	1-216-033-00	METAL CHIP	220 5% 1/10W	
R272	1-216-073-00	METAL CHIP	10K 5% 1/10W	
R273	1-216-081-00	METAL CHIP	22K 5% 1/10W	
R274	1-216-129-00	METAL CHIP	2.2M 5% 1/10W	
R275	1-216-089-00	RES, CHIP	47K 5% 1/10W	
R281	1-216-033-00	METAL CHIP	220 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R282	1-216-073-00	METAL CHIP	10K	5%	1/10W
R283	1-216-081-00	METAL CHIP	22K	5%	1/10W
R284	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R285	1-216-089-00	RES, CHIP	47K	5%	1/10W
R286	1-216-033-00	METAL CHIP	220	5%	1/10W
R301	1-216-079-00	METAL CHIP	18K	5%	1/10W
R302	1-216-097-00	RES, CHIP	100K	5%	1/10W
R303	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R304	1-216-077-00	METAL CHIP	15K	5%	1/10W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-105-00	RES, CHIP	220K	5%	1/10W
R331	1-249-393-11	CARBON	10	5%	1/4W
R351	1-216-049-11	RES, CHIP	1K	5%	1/10W
R352	1-249-385-11	CARBON	2.2	5%	1/6W
R353	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R501	1-216-097-00	RES, CHIP	100K	5%	1/10W
R502	1-216-097-00	RES, CHIP	100K	5%	1/10W
R503	1-216-097-00	RES, CHIP	100K	5%	1/10W
R504	1-216-097-00	RES, CHIP	100K	5%	1/10W
R505	1-216-097-00	RES, CHIP	100K	5%	1/10W
R506	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R507	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R508	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R509	1-216-073-00	METAL CHIP	10K	5%	1/10W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-208-826-11	RES, CHIP	68K	2%	1/10W (EXR-105)
R513	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (XR-3740)
R514	1-208-526-41	RES, CHIP	47K	2%	1/10W (XR-3740)
R514	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (EXR-105)
R516	1-216-097-00	RES, CHIP	100K	5%	1/10W
R517	1-216-097-00	RES, CHIP	100K	5%	1/10W
R518	1-216-097-00	RES, CHIP	100K	5%	1/10W
R519	1-216-097-00	RES, CHIP	100K	5%	1/10W
R522	1-216-097-00	RES, CHIP	100K	5%	1/10W
R523	1-216-097-00	RES, CHIP	100K	5%	1/10W
R524	1-216-097-00	RES, CHIP	100K	5%	1/10W
R525	1-216-097-00	RES, CHIP	100K	5%	1/10W
R526	1-216-097-00	RES, CHIP	100K	5%	1/10W
R527	1-216-097-00	RES, CHIP	100K	5%	1/10W
R528	1-216-097-00	RES, CHIP	100K	5%	1/10W
R530	1-216-097-00	RES, CHIP	100K	5%	1/10W
R531	1-216-097-00	RES, CHIP	100K	5%	1/10W
R533	1-216-097-00	RES, CHIP	100K	5%	1/10W
R535	1-216-097-00	RES, CHIP	100K	5%	1/10W
R536	1-216-246-00	RES, CHIP	100K	5%	1/8W
R537	1-216-246-00	RES, CHIP	100K	5%	1/8W
R538	1-216-097-00	RES, CHIP	100K	5%	1/10W
R539	1-216-097-00	RES, CHIP	100K	5%	1/10W
R540	1-249-421-11	CARBON	2.2K	5%	1/4W
R541	1-249-421-11	CARBON	2.2K	5%	1/4W
R542	1-249-421-11	CARBON	2.2K	5%	1/4W
R543	1-249-421-11	CARBON	2.2K	5%	1/4W
R544	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R545	1-249-429-11	CARBON	10K	5%	1/4W
R546	1-249-413-11	CARBON	470	5%	1/4W
R551	1-216-097-00	RES, CHIP	100K	5%	1/10W
R552	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R561	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R562	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R563	1-216-025-00	RES, CHIP	100	5%	1/10W
R564	1-216-025-00	RES, CHIP	100	5%	1/10W
R571	1-216-097-00	RES, CHIP	100K	5%	1/10W
R572	1-216-089-00	RES, CHIP	47K	5%	1/10W
R573	1-216-089-00	RES, CHIP	47K	5%	1/10W
R574	1-249-421-11	CARBON	2.2K	5%	1/4W
R575	1-216-073-00	METAL CHIP	10K	5%	1/10W
R585	1-216-113-00	METAL CHIP	470K	5%	1/10W
R586	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-249-393-11	CARBON	10	5%	1/4W
R602	1-249-395-11	CARBON	15	5%	1/4W
R603	1-216-186-00	RES, CHIP	330	5%	1/8W
R621	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R701	1-216-025-00	RES, CHIP	100	5%	1/10W
R702	1-216-025-00	RES, CHIP	100	5%	1/10W
R703	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R704	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-206-00	RES, CHIP	2.2K	5%	1/8W
R707	1-216-049-11	RES, CHIP	1K	5%	1/10W
R708	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R709	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R710	1-216-025-00	RES, CHIP	100	5%	1/10W
R721	1-216-296-00	SHORT	0		
R722	1-216-296-00	SHORT	0		
R723	1-216-296-00	SHORT	0		
R724	1-216-296-00	SHORT	0		
R731	1-216-296-00	SHORT	0		
R732	1-216-296-00	SHORT	0		
R733	1-216-296-00	SHORT	0		
R734	1-216-296-00	SHORT	0		
R751	1-216-198-00	RES, CHIP	1K	5%	1/8W
R752	1-216-049-11	RES, CHIP	1K	5%	1/10W
R781	1-216-049-11	RES, CHIP	1K	5%	1/10W
		< SWITCH >			
S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
S551	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU1	A-3282-034-A	TUNER UNIT TUX-010 (E)			
		< VIBRATOR >			
X501	1-567-713-11	VIBRATOR, CRYSTAL (4.5MHz)			

9-925-548-81

Sony Corporation
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